



COLONIAL BUILDINGS, 44A CANNON STREET, LONDON, E.C.

Published on the 15th of each Month.

TWENTIETH YEAR OF PUBLICATION.

Subscription, 10s. per year, payable in advance;
commencing from any date.

Post free to every country in the world.

Single Copies, 1s. each.

A Copy of THE CHEMISTS' AND DRUGGISTS' DIARY, published annually, is presented to every subscriber. Price to non-subscribers, 3s.

Advertisements, Remittances, Subscriptions, Orders for Copies, and all communications must be addressed to "THE PUBLISHER OF THE CHEMIST AND DRUGGIST."

Cheques and Post-office Orders to be made payable to *Edward Halse and Co.*

No one is authorised to collect money without production of the Proprietors' lithographed form of receipt.

SCALE OF CHARGES FOR ADVERTISEMENTS.

One Page, 5l.; Half Page, 2l. 15s.; Quarter Page, 1l. 12s. Special Rates for Wrapper and the pages preceding and following literary matter. The above Scale of Charges will be subject to a discount of 10 per cent. upon even, and 20 per cent. upon Thirteen insertions, prompt quarterly payments; the Thirteenth appearing in the DIARY AND TEXT-BOOK. Seven lines and under, 4s. 6d.; every additional Line, 6d. Advertisements of Assistants Wanting Situations (not exceeding 12 words) inserted at a nominal charge of 1s. each. For such advertisements when replies are to be addressed to this office an extra charge of 6d. must be paid to cover cost of transmission.

All Advertisements intended for insertion in the current Month must be sent to the PUBLISHER OF THE CHEMIST AND DRUGGIST on or before the 12th, except Employers' and Assistants' Advertisements, which can be received up to 10 A.M. on the morning previous to publication.



According to a very recent decision of the Board of Inland Revenue all persons selling quinine wine *not* prepared according to the Pharmacopœia must obtain a British wine licence or incur themselves liable to prosecution.

The Dentists Bill has passed the Houses of Parliament, and received the Royal Assent on July 22. Chemists actually practising dentistry will be entitled to registration. We give necessary information. The Medical Act Amendment Bill introduced by Government has at last been withdrawn for want of time to pass it through the House of Commons. It will most certainly be put forward next Session, and as we have fore pointed out, there can hardly occur a better opportunity in this for testing the opinion of Parliament in regard to under practice.

The Sale of Food and Drugs Amendment Bill, to which we referred last month, was read a second time in the House of Commons, but has not been further proceeded with. Mr. Dernon, who had charge of it, finding it impossible to pass it in session, has withdrawn it, but will bring it forward next year. Meanwhile the difficulty which it was intended to meet has been surmounted ingeniously in some places by simply letting the inspector to use his purchases in his own family.

In the House of Commons, on August 5, the Chancellor of the Exchequer said he had communicated with the Lord Presi-

dent of the Council, who agreed with him that it would be useless to attempt to pass the Medical Act Amendment Bill at this period of the session, and the order would, therefore, be discharged.

Mr. C. Troke, of the City Road, suggests, in a note printed elsewhere, that chemists might have petitions on their counters, on behalf of counter prescribing, to be signed by their customers. The public would sign such petitions with eagerness if they could be made to comprehend that any such absurd notion was in contemplation as the legal gagging of chemists and druggists in reference to the medicines they sell. The suggestion will probably be remembered when the campaign recommences next year.

The Court of Exchequer having concluded its business in jury cases for the present session, it is impossible for the trial of the Apothecaries' Company *v. Shepperley* to come on before next November.

The British Medical Association met at Bath last week, under the presidency of Dr. R. W. Falconer, of that city, who gave a long address, chiefly on the virtues of the Bath waters. Dr. H. F. A. Goodridge, of Bath, delivered the address in medicine, choosing for his subject "The Pathology of Fever;" and Mr. C. G. Wheelhouse, of Leeds, delivered the address in surgery, reviewing the progress of the art in concise and compressed style. A proposal to exclude women from membership of the Association was carried after a warm discussion, in the course of which Mrs. Garrett Anderson defended the rights of medical women in a speech of great ability.

Messrs. Dunn & Co. have accepted the challenge offered to them by Messrs. Macfarlan & Co. in our last issue, to distinguish samples of chloroform made from methylated spirit from others made from rectified spirit. Their letter will be found in our correspondence column.

The trial of Henry George King, the maker of the arsenical violet powder, for manslaughter, took place at the Central Criminal Court, on August 7. Mr. Justice Field, who presided, intimated that the evidence did not prove criminal negligence, though he said it was quite right that the circumstances should have been investigated. The prisoner was acquitted.

Two chemists were prosecuted at Salford, on July 19, under the Sale of Food and Drugs Act, for selling as violet powder a preparation of which the chief ingredient was plaster of Paris. The case was defended by the Chemists' Trade Association, on the ground that violet powder was not a drug. The magistrates overruled the plea, however, and convicted the druggists. An appeal against their decision was lodged, which, we understand, will be fought out, not by the Trade Association, but by Messrs. Alfred Bird & Son, the makers of the powder.

A chemist, at Brighton, named Henry Charles Darley has been sentenced to 10 years' penal servitude for having administered medicine to a pregnant woman with the intention of procuring abortion. A surgeon, who was also working in connection with the chemist, was sentenced to 15 years' penal servitude.

The wholesale drug warehouse of Messrs. Hodgkinson, Prestons & King was almost totally destroyed by fire on the night of July 15. The damage, which is fairly covered by insurance, was roughly estimated to amount to 20,000/. Until their premises are rebuilt their business will be carried on at 1 Bury Street, St. Mary Axe.

A further batch of failures in the chemical trade has to be announced: H. Wallace & Co., of Battersea, Mr. Beatson, of Rotherham, and Messrs. Kelly & Co., of Mark Lane, all of whom seem to have been to some extent mutually dependent to make up the present group.

Pharmaceutical.

PRIZE DAY AT THE SOUTH LONDON SCHOOL OF PHARMACY.

On Saturday morning, July 13, the prizes for the end of the session were awarded to the students at the South London School of Pharmacy. The chair was occupied as usual by the Vicar of the parish, the Rev. S. Bache Harris. Mr. Baxter, the Secretary, congratulated those present on the success which they had gained in the public examinations; out of twelve who had up to that date appeared before the Board only two had failed to satisfy the examiners. He passed a high eulogium on the literary and scientific attainments of the Director, Dr. Muter, to whom chiefly the prosperity of the school was due. It had been thought right to assist Mr. Dodd, the lecturer on *materia medica*, in his arduous duties, and to intrust the practical teaching of dispensing to another gentleman. This division of labour had resulted in increased excellence in the manipulations of pure pharmacy; the recent examination held on the school premises had been more than usually satisfactory.

Mr. Phillips, the senior medallist, rose, and, in the name of his companions, returned thanks to the officers and members of the Institute.

The visiting examiner in pharmacy then briefly addressed the audience. He said that twenty-four candidates had competed for the medal in practical pharmacy, and that the mechanical dexterity shown was an advance upon previous efforts. He felt that some little apology, or rather explanation, was due from him to the Director of the Institute, for having on past occasions devoted so much of his remarks to the consideration of his own particular branch—the study of practical pharmacy. He had been betrayed into this for many reasons, one being that the study of that branch was not in itself attractive, and was devoid of any call on the imagination such as that afforded by the experimental science of chemistry. Moreover it was difficult to stand within the walls of the laboratory and exhort students to cultivate a pursuit to which it was clear they were devoted; while the very surroundings of the building would be more eloquent in suggestions than the speaker. Lastly, it was more than difficult, it was impossible, in the Doctor's presence to say that which his own and their hearts dictated. Waiving all other considerations he would now venture to tell them that the past history and present reputation of the school pointed to it as one of the foremost Schools of Chemistry in England. It had not been always so; not long ago it had started in a small way, but widening its circle rapidly, it had held its own against competition—not opposition—a good thing in all respects, as it was an increased stimulus to educational effort. Of late competition had occasionally assumed the shape of opposition; but the establishment at South Kensington had not been endangered. The Institute combined in itself all the elements which go towards successful operation. He had the pleasure of reminding them that it possessed a most energetic and admirable secretary, and without an energetic management such an institution as that was would soon drop to pieces. Personal experience, also, convinced him that they enjoyed the advantage of a most admirable *materia medica* teacher, and he would venture to further remind them that the one thing on which the prosperity of the school depended was the possession of such a man at its head as Dr. John Muter. He felt that these remarks were due to that gentleman on account of his having previously permitted himself to advocate pharmacy apparently to the exclusion in his thoughts of the claim of the particular branch of their education to which Dr. Muter devoted his abilities. He concluded his observations as follows: "This explanation, gentlemen, has left me little time for the usual topics of an address. I cannot say that I regret this much, for I have listened with pleasure to very many homilies to students,

and in varied language they seem all to come to about the same thing and to express the one counsel—Make your work your pleasure. That is the beginning and ending of the exhortation; that indeed is the whole burden of the discourse, I can say to you nothing better, and nothing more, than—Make your work your pleasure. And now one last word in behalf of the executive of this place. You can hardly know how hard it is to be perpetually grinding at the mill of education—that is, without your favour and co-operation. Under such circumstances the work becomes mechanical, monotonous, and almost insupportable. With your co-operation all is sunshine, both for them and you. Let your instructors have their reward: that reward is the prosperity of the school, and that prosperity is your own personal success."

WHY SOME PLANTS EAT MEAT.

A beautiful series of experiments have been worked out by Dr. Francis Darwin in illustration of the views of his father. We would particularly draw attention to the simplicity of the mode adopted, proving, as it does, that a love and habit of observation are the requisites for original research. Darwin the elder believes that the power of catching and digesting insects is advantageous to the plants, and plays an important part in their economy. The phenomena which have been observed by many, and philosophically considered by a few, are not mere accidents; still less disturbances in plant life. "If," says the Doctor, "this explanation of the facts be not accepted, we find ourselves in the presence of a number of elaborate, but quite meaningless, structures, such as the trap of a *Dionaea* or *Utricularia*; delicate powers of discriminating between different kinds of stimuli, as in *Drosera*; and properties of forming a peptic secretion, such as that in *Pinguicula*, *Diouea*, and *Drosera*. There is nothing created in nature which is not specially adapted for some distinct purpose, and to think otherwise would be to interpret wrongly the evidences of design. Still, though many observers have acceded to the Darwinian theories on this matter, as no direct proof of advantage accruing to the plant from the capture and digestion of insects has been given, a provisional acceptance of the theory may fairly be followed by a request that such direct proof be furnished. We can picture to ourselves nothing more delightful than the spirit in which the son sets about the task of completing the unfinished experiments of his father, bound together as both are by ties of natural piety.

Darwin (*père*) originally devised a mode of proof. Plants of *Drosera* were cultivated in plates, each of which was divided into halves by a strip of zinc. The plants on one side of the partition were to have been fed, the other half being kept without food, and their growth was to have been compared.

The term starved was applied to the unfed plants, for the sake of clearness. In this first essay both the fed and the starved plants died, either poisoned by the zinc or injured in some other way, and hence the experiment failed. A second attempt, made by the son, was more successful, wooden instead of metal partitions having been employed.

The recent literature on the subject shows that the want of some such experiments have been widely felt. E. Morren, of Liège, remarks that it ought to be experimentally established that the absorption, which is undoubted, really contributes to the nourishment of the plant. Cramer, of Zurich, cites many experienced naturalists who are of opinion that the plants in question thrive as well when starved as when supplied with insects, and therefore the question ought to be experimentally decided.

One author (Munk) remarks that the catching and driving away of insects may be of service; but in the digestion he can

see an injury, and this idea is expressed by others, all of a careful observers.

Isimir de Candolle made a comparative experiment on four *Ocea* plants, two of which were fed and two starved. Care was watched for six weeks, no difference was noticed between two sets: the conclusion drawn was that animal food was necessary to the plants, though he was careful to point out the number operated on was too few to form a just conclusion therefrom.

M. Cavallier addressed the question to a number of distinguished observers as to their opinion on the subject of vegetable digestion. The replies were chiefly opposed to the theory, being their rejection on the want of positive and direct confirmation. It was needful, then, to furnish, if possible, proof that digestion did take place, and that also it was beneficial; the problem had been stated, rather than proved, and digestion was assumed to occur upon insufficient data.

The *Drosera* plants were obtained from a neighbouring mon, and were planted in moss in six ordinary soup plates: they were placed in two rows on a wood tray having a raised border all round, and were covered by a wooden frame one foot in height, over which was stretched a gauze netting. The tray was lifted off and on like a bell glass and fitted close in the rim of the tray. The whole apparatus stood in the light in a grape house, where no artificial heat was applied, and where the shade appeared to suit the plants, as they thrived wonderfully. The plants and moss were kept damp, and the water was constantly renewed. Each plate was divided into two halves, separated from each other by a thin piece of wood hardly reaching above the surface of the moss. That half of each plate which appeared least thriven was selected to be the "fed" side, the opposite being labelled "starved." Every precaution was taken to conduct the experiment with accuracy; the plants were arranged with the partition line of each pointing to the light, so that one side received more light than the other, and the arrangement of the plates was systematically varied so as to prevent one profiting from light or air more than its fellows. The food was roast meat cut into thin slices across the grain, the fibre being, and so comminuted that fifteen weighed when damp only 15 centigrams; each piece was $\frac{1}{15}$ grain. The food was placed on every leaf which had secretion on the glands. Larger portions were not digested, but covered with mould instead. The difference noticed between the fed and the starved halves of the plates was that the fed side was clearly greener than the other; the increase in the amount of chlorophyll thus indicated agreed with the result of the final comparison of dry weights, which proved that a much greater quantity of cellulose was manufactured by the fed than by the starved plants. Increase of chlorophyll is associated with increased assimilation of carbonic acid, and this permits the production of a larger quantity of cellulose. The body of the chlorophyll grain being protoplasmic, it is obvious that an increased supply of nitrogen will favour the multiplication of chlorophyll, and increase the starch-producing power of the plant. The absorption of nitrogenous food produced a most decided effect on the number of flower-stems, the fed plants having 173, and the starved plants 116 only. The number of plants which bore at least one flower was 34 on the fed side, as compared with 19 on the starved.

The healthiness of the leaves was determined by the presence of secretion on the glands; the fed plants exhibited 256 healthy leaves, the starved 187. The diameter of 45 leaves selected at random from both sides was measured on the millimetre scale. Five fed leaves gave a total of 328 mm., while 45 starved leaves gave a total of 301 mm. The capsules being now mostly ripe, there was the danger of seeds by the bursting of the capsules, consequently the

flower-stems from all six plates were cut. For the sake of brevity a running comment on the tables furnished is omitted, and Dr. Darwin's results are above recorded. The minimum number of seeds among the fed capsules was 52, the maximum 168. Amongst the starved capsules the minimum number was 44, the maximum 129.

In whatever way the fed and starved plants were investigated the advantage was on the side of the former. Moreover, though in number and height the fed plants were superior, yet the weights of the stems, and the weights of the seeds on the fed side, exceeded the corresponding weights on the starved side in a still higher ratio. Increased weight is a better proof than an increase in numbers or size, of increased power of assimilation.

The striking difference found to exist between the fed and the starved plants was that which related to reproduction of the species; from the results given here in abstract, it would seem that the great advantage accruing to carnivorous plants from a supply of nitrogenous food to the leaves is the power of producing a vastly superior yield of seeds.

Doctor Darwin ventures to think that the above experiments prove beyond question that the supply of meat to *Drosera* is of signal advantage to the plants, and that there can be no doubt that other insectivorous plants profit in an analogous manner from the capture of insects in a state of nature.

Very remarkable indeed was a last experiment, when three plates of both fed and starved plants, of which the flower-stalks only were gathered, were allowed to rest during the winter, in order to test the relative amounts of reserve material laid up by both.

The plants were forced in the hot-house, and were placed under identical conditions, both remaining without food. Taking 100 as the standard number for the starved plants, the total weight of the fed plants was 251.6, and the average weight per plant, compared with the standard 100 for the starved plants, was 213 for the fed. "It is a striking fact," says the Doctor, "that in spite of the relatively enormous quantity of flower-stalk and seed produced in the summer by the fed plants, they were still able to lay by a far greater store of reserve material than their starved competitors."

Essentially similar experiments were described before the Phys. Med. Society of Erlangen by German investigators. The food supply consisted of aphides, instead of meat, and the results demonstrate in the clearest manner the numerous and striking advantages accruing to the fed plants.

* * *

THE PHARMACEUTICAL CONFERENCE.

By the time this journal is in the reader's hands Ireland will have welcomed English science, and the British Pharmaceutical Conference will have held its anniversary in Dublin. With regard to the origin of the organisation, we are in doubt, for whenever wishing to be at once historical and exact, we have referred its creation to some leading member, that gentleman has disclaimed the honour, and suggested someone else. On of these days we shall come upon the precise occasion on which Mr. Schacht, the President of this year, ventured to propose, and Mr. Jacob Bell approved, that pharmacy should not be restricted to a London centre.

We are not sure what was the formula of the circulation—whether it was to take the shape of peripatetic lectures, or of some other mode of motion—but that idea was the seed which has since borne excellent fruit.

One thing is clear—that to whomsoever the credit of initiation may be given, several amongst the visitors at the Hall of the King and Queen's College of Physicians have energetically combined to promote the well-being of the British Pharmaceutical Conference.

We trust that, as time rolls on, there may never be wanting those amongst its members who will serve it faithfully, and be mindful of its traditions.

For the present no possible fear on this score need be entertained.

The Pharmaceutical Council.

AT the meeting of the Council held on August 7 Messrs. Frazer, Hanbury, Mackay, Rimmington, Woolley, Churchill, and Shaw were absent. Some local secretaries were appointed, and members and associates elected.

A NEW LENS.

The reports of committees were then received. On a recommendation of the House Committee for the purchase of a lens, Mr. Schacht raised the question whether it was advisable to expect the professors to keep the members of the Society acquainted with the progress of spectroscopic science. It would be expensive, and was not really connected with pharmacy. The President said the lens had been wanted for Professor Redwood's lectures, and had been purchased on the understanding that that gentleman should deliver two or three lectures on optics during the session. The question whether the students received any benefit from the apparatus could be dealt with only by the Committee in conference with the professors.

BENEVOLENT FUND.

The Committee recommended the following grants:—20*l.* to the widow of a registered chemist and druggist sixteen years in business; 10*l.* to an associate out of business owing to a long illness; 20*l.* to a pharmaceutical chemist and member of the Society from 1870 to the present time, but at present in distressed circumstances; 5*l.* to the widow of a registered chemist and druggist.

A vote of thanks to Mr. Owen was carried unanimously. He had secured the election of a child to an orphan asylum at an expenditure of only 30 guineas.

The Secretary stated that nearly 800 subscribers to the fund had not yet sent in their subscriptions for the year. The President said the Council would soon have to decide how many annuitants should be elected for the year; and Mr. Bottle remarked that part of the subscriptions were now used at once for charitable purposes instead of being funded, in which case the interest alone was available.

MUSEUM.

The Committee reported that Mr. Fresson, of Demerara, had offered to present to the Society his collection of drugs now in the Paris Exhibition. This had been accepted, and the Curator had been desired to take all necessary steps to procure any desirable specimens, and if necessary, to go himself to Paris to secure them.

MEDICAL ACT AMENDMENT BILLS.

The Special Committee on this subject reported that they had met, and that a deputation consisting of the President, Mr. Hills, and Mr. Sandford, had waited on the Duke of Richmond on July 11. The President drew his Grace's attention to "certain published opinions expressed by him on introducing the Bill to the House of Lords, and since repeated on various occasions, opinions which had led to the hope that difficulties under which chemists now labour in the exercise of their business would be removed. Care was taken to convince his Grace that the Pharmaceutical Society had no desire to legalise the medical practice, properly so called, by unqualified persons; that, on the contrary, the Society, while doing all in its power to promote the safety of the public by ensuring a thorough education of pharmacists, endeavoured to impress on them the importance of not exceeding the proper scope of their business; that the business of a chemist necessarily included advice to a certain point in the treatment of minor ailments, advice which the public demanded, and really insisted on having in all districts, but more urgently in certain localities where the circumstances of the inhabitants precluded the constant reference to properly qualified practitioners. It was also stated *incidentally* that now that chemists were compelled to undergo a strict examination, and give evidence of certain training prior to being allowed to commence

their business, it was felt to be a hardship that medical men who had undergone but a very superficial examination in pharmacy should be allowed to keep open shop, and Glasgow was specially mentioned as affording numerous instances of this practice. The Duke, who was accompanied by the Parliamentary draftsman and another gentleman, entered very fully and carefully into the points urged, and repeated his opinion that the public had a right to apply to whom they liked for advice. He stated that the words in the first draft of the Bill went further than was intended, and that the clause was, in fact, inadvertently drawn, and in this he was confirmed by the draftsman; that, although any man was free to take advice where he chose, it was not intended to legalise unqualified practitioners; that, even if it were wise to do so, the Bill now under consideration would not be the proper one in which to do it. If it were desired to enlarge the privileges of chemists, it must be done by an addition to the Pharmacy Act; but he saw no chance of Parliament agreeing to such an addition, or even inserting such a provision in the Medical Bill.

In further conversation his Grace drew attention to a notice of amendment by Mr. Freshfield, but remarked that it was in no way pertinent to the Bill, inasmuch as the rights of chemists were not affected by the Bill in the smallest degree. The deputation, admitting this, still urged the Duke to restore his original full repeal of the 20th section of the Apothecaries Act, the more especially as, other sections of that Act being repealed, it was no longer possible to obtain a certificate from the Society of Apothecaries.

Beyond this, his Grace inquired of the deputation if they could instance any case of oppressive prosecutions by the Society of Apothecaries. The Committee were unable to cite any such cases, but stated that, although the Society might not voluntarily institute such prosecutions, they were urged, and sometimes compelled, to do so by the Medical Defence Association. On being informed of the late communication between Mr. Upton and Mr. Flux, the Duke advised that chemists should be satisfied to leave things as they are.

His Grace, without encouraging any hope that he would make the required alteration, promised to give the matter full consideration, and, thanking him for his courteous reception, the deputation withdrew.

Mr. Hampson subsequently proposed, in committee, that the President should sign a petition to Parliament praying for the repeal of the 20th clause of the Apothecaries Act of 1815, but on being put, the motion was lost.

He had given notice of a similar motion to be submitted to the Council, but in accordance with the wish of the President, and as the Medical Amendment Act had been withdrawn from Parliament, it was not put to the meeting.

Mr. Hampson, in withdrawing his motion, said he regretted the Committee would not petition for the repeal of the 20th section of the Apothecaries Act. The action of the company had certainly caused considerable anxiety to the trade, and it had undoubtedly instituted oppressive prosecutions. He could not help thinking that the answer given to the Duke of Richmond by the deputation was scarcely accurate. No doubt it represented the views of the gentlemen then present, but he did not think it was in accord with the facts. Those three gentlemen represented the case very fairly from their point of view, but it could scarcely be expected that a deputation so composed should realise the condition of the trade as it obtained throughout the country, they being so much more identified with select and high-class pharmacy. He did not doubt they had done their best, and certain parts of their report were very satisfactory, but he scarcely liked the answer they gave to the question addressed to them. It appeared that the third schedule of the Bill repealing the 20th clause of the old Apothecaries Act was not removed in consequence of their own opposition, or that of any other body.

Mr. Gostling thought that the Committee's representation of the case was highly satisfactory, and he had no doubt it would be felt so by all the members of the trade.

Mr. Atkins could not but express his sense of pleasure and gratitude in listening to the report. He believed that it exactly embodied the sentiments of the Council and of the majority of pharmacists throughout the kingdom, and that it could not have been better put. Still he confessed he had not been able to feel that there had been no excessive prosecution. This, he thought, had instigated the activity of the chemists. He then skilfully insinuated in very guarded language his very decided opinion that the unwise but well-meant action of the Chemists and Druggists'

Trade Association had prevented the repeal of the peual section of the Apothecaries Act by calling prominent attention to it.

Mr. Bottel felt extremely grateful to the members of the leputatiem for the mauner in which they had fulfilled the nissien confided to them. He did not agree with Mr. Hampson, but thought that the endeavour to repeal the 20th section of the Apothecaries Act was as just as would be an attempt on his part of the docters to throw the sale of poisons open to all.

Mr. Fairlie was satisfied with parts of the report, and specially with that which related to Glasgew. He thought Mr. Bottel ought to know that at the time of the passing of the Pharmacy Act the docters had interfered, and got a portion of it altered, which had done much injury to chemists in some parts of the country. It was a pity that some members of the Council did not take a broader view of the matter beyond themselves. They ought to take into consideration the vast number of persons connected with the trade to whom this matter applied personally.

Mr. Sandford said Mr. Fairlie was labouring under a great delusion. Medical men had nothing to do with the Pharmacy Act of 1868; but the Amendment Act of 1869 was simply passed because the Act of 1868 did not give a sufficient description of medical men in Scotland. The Council had, heretofore, helped to pass the Bill, and get other provisions inserted.

Mr. Fairlie said this was just what he had complained of. If the Ceuncil had known the exact position of affairs, they ought to have opposed the Amendment Act, or have obtained such a modification of it as would have put medical men and chemists on an equal footing, instead of giving docters the superiority.

In the report of the

GENERAL PURPOSES COMMITTEE

The list of prizemen was presented, and caused a little discussion. It was reported that Mackness's case had been set down for hearing, but could not come on until November. John Vaughan, of Audlem, an unregistered person, who was ordered by the Ceuncil at its last meeting to be prosecuted, had remitted the penalty to the Society's solicitors. Two cases in which the Pharmacy Act had been found to be infringed, after due notice had been given to the offenders, were ordered to be prosecuted.

The Precurater Fiscal of Dunblane had written, asking if salt of sorrel should not be included in the poison list. The Secretary was directed to reply in the negative, the President giving as one of his reasons that it was very much used.

The Coroner for Nerwick had written, inquiring whether the Society could prevent wholesale houses from supplying poisons to unregistered persons. The Chief Constable of the same city asked if the Council would prosecute if he got up a good case.

The Secretary was directed to reply to the Coroner that the Society had no power in the matter, and to the Chief Constable, that if a case were got up for prosecution "it should receive the consideration of the Council."

REPORT OF THE BOARD OF EXAMINERS.

Seventeen Major candidates were examined in July; three failed. A hundred and eighteen candidates presented themselves for the Minor; forty-eight passed and seventy failed. Four submitted to the Modified Examination; three failed.

In discussing the report Mr. Schacht asked if it could be known how many of those who failed to pass the Preliminary presented themselves a second time. He thought the question was an important one. The Secretary said the figures could be furnished without difficulty, as those who presented themselves a second time paid one guinea instead of two.

THE PHARMACEUTICAL SOCIETY AND THE TRADE ASSOCIATION.

A letter was read from the Secretary of the Chemists and Druggists' Trade Association asking to be informed if the Council refused to grant a sum of money for the defence of Shepperley's case.

The President said the Council had never refused it, because it had never been put to the vote. He supposed Mr. Haydon could read, and understand what had taken place.

Mr. Sandford said Mr. Haydon might have taken that as the decision of the Council. He should take no further notice of it.

SHEPPERLEY'S CASE.

Later on in the proceeding a letter was read from the Society of Chemists and Druggists at Sheffield containing a resolution

earnestly requesting the Society to aid, by a grant of money the defence of Shepperley's case.

ALTERATION OF FEES.

Mr. Fairlie next moved, "That considering the increase in the travelling and other expenses to be incurred by candidates for the Preliminary Examination in connection with the reduction in the number of centres now agreed upon for conducting the said examination, the fee be reduced to one guinea on and after October 1 of this year." He stated that, in Glasgow at least, it was more convenient and cheaper to pass the Preliminary for the medical profession than that for pharmacy. If the Society wished to attract young men into the trade they must offer those inducements provided by other examining bodies.

Mr. Schacht seconded the motion, though he thought it might be advantageously modified.

It was explained by the President that the amount of fees could only be altered by an alteration of the bye-laws, which was a complicated process. Such being the case, the motion was withdrawn, Mr. Fairlie stating that he should consult with Mr. Schacht, and bring it forward at some future time.

Mr. Atkins thought it would be unwise to make a change. He said that everyone present must know that a guinea would not pay the current cost of the examination. A month's consideration had convinced him that the Ceuncil had made a great mistake in abolishing some of the centres for examination.

Another motion, of which Mr. Fairlie had given notice, which would abolish the entrance fee of two guineas for chemists and druggists in business before 1868, who desired to become members of the Society, was withdrawn on the same grounds.

THE ADMISSION OF THE EDITOR AND SUB-EDITOR OF THE "PHARMACEUTICAL JOURNAL" TO THE COUNCIL MEETINGS.

Mr. Fairlie then proposed the following resolution:—

That the Editor and Sub-editor of the *Pharmaceutical Journal* be invited to attend the meetings of Council, with a view to obtaining through the medium of the Journal more extended and accurate reports of the proceedings of the Council, and also to enable them to enunciate in their editorial articles and notes the true policy of the Council and the Society.

He thought that it was very desirable to destroy the idea that the Council had any wish to control the reports of its proceedings. It had been distinctly stated by one or two members that the Council desired to, and did, control these reports; but he thought it should be made perfectly clear that such was not the case. This could best be done by inviting the editor to attend the meeting. Further, that gentleman had recently taken upon himself to remark on one or two subjects which had been discussed by the Ceuncil in committee; of which discussion no reports had been published, beyond the information given in the editorial notes. He had observed that in those notes the opinions of a certain section only of the Council were represented.

The President: The majority.

Mr. Fairlie contended that it was not the majority. In the recent discussion on the admission of reporters, the editor had spoken distinctly of the majority in the Council who opposed it. If he had been correctly informed, two out of the three gentlemen who were absent when the vote was taken would have voted in favour of the admission of the reporter of *THE CHEMIST AND DRUGGIST*. Perhaps he was out of order, but he could not help thinking that the President used two votes to every member's one; and it was a curious thing that the President of the Society should have two votes.

Mr. Betty protested against the conduct of the President being criticised by any member of the Council. He had never ventured to do it, and did not think the youngest member of the Council should interfere in this way with the privileges of the President.

The President said it seemed to him most unusual and unwarranted.

Mr. Atkins remarked that Mr. Fairlie would be the last man to say anything improper. He would remind him that it was the practice of all municipal bodies to give the Mayor, as chairman, a casting vote.

Mr. Fairlie was aware of that, but took the House of Commons as his guide, the Speaker of which did not vote when there was an equality of votes.

Mr. Betty would not allow any comparison of the President with the Speaker of the House of Commons to the disparagement of the former.

Mr. Fairlie explained that he meant no imputation on the character of the President; and, after some further discussion, in which Mr. Schaeft took a part, " frankly withdrew" everything that could be offensive. He went on to say that when the editor discussed Wiggins's case he took the view held by the majority of the Council, but the subject not having been discussed formally before the Council, no opportunity had been given to gentlemen on the opposite side to refute the arguments brought forward. If the editor was to report the things that were done in committee, he must be present, and hear for himself the *pros* and *cons* of the question, so that he might give a fair and impartial account in the Journal. As a society, they had larger interests than those of a majority to consider, and they ought to look on the Journal as an organ which would take, to a large extent, an impartial position.

No one seconding the proposal, it fell to the ground.

Mr. Bottle thought that the officials, when they received a notice of motion palpably in opposition to the bye-laws, should not put it on the agenda paper.

The President thought this would be too heavy a responsibility for any one person, and after some discussion the matter dropped.

In answer to questions from Mr. Fairlie, the President stated that he now made it a practice to tell candidates who had failed in what subjects they had been found defective, and also those in which they had excelled. However high the marks a young man might obtain in any subject, if he failed in a single one those marks were of no further use to him: he commenced the next examination as if he had then submitted himself for the first time. The salaries of the paid officers of the Society were fixed from time to time by the Council as it thought proper, generally on the recommendation of the Committee.

Mr. Sandford then moved—

That the Preliminary Examination be held on the first Tuesdays in January, April, July, and October, instead of on the first Mondays in those months, as heretofore.

That the examination for the Jacob Bell Memorial Scholarships be held on the first Tuesday in July of each year, instead of on the first Monday of that month, as heretofore.

His reason for bringing forward this motion was that the increased distance candidates are compelled to travel to reach the centres of examination, under the new regulations, would make it necessary for many of them to travel on Sunday night. After some discussion this was carried unanimously.

PHARMACEUTICAL CONFERENCE.

The President, Vice-President, Treasurer, and any other members who found it convenient were appointed delegates to the Conference.

Provincial Reports.

CHESTER.

NOXIOUS VAPOURS.—On Saturday, July 27, Vice-Chancellor Bacon delivered judgment in *Brocke v. Wigg*, which was argued at considerable length, and in which a great number of witnesses were examined, the case resting entirely upon the evidence of persons connected with the neighbourhood. The action was brought by Sir Richard Brocke, Bart., and Mr. Marcus Brocke, the tenant for life and tenant in tail in remainder of "Norton Priory," in the county of Chester. The plaintiffs alleged that the defendants, Messrs. Wigg & Steele, who were the owners of alkali works at Widnes and Runcorn, had, by the poisonous vapours issuing from their works, caused extensive injury to the woods and herbage and standing crops upon the Norton Priory Estate, and to the decorations of the mansion-house; and that the health and comfort of men and animals had materially suffered from such noxious vapours. An injunction was, therefore, prayed to restrain the nuisance. The defendants denied that any damage had been caused by their works, and alleged that they had used the newest and most approved machinery for condensing the vapours, so as to prevent any nuisance arising from their manufacture.—His Lordship, in giving judgment, commented at considerable length upon the evidence which had been brought forward on both sides, and

came to the conclusion that the plaintiffs had fully established their case, and granted an injunction to restrain the defendants from committing any further nuisance by allowing the noxious vapours to escape from their works; and he ordered the defendants to pay all the costs of the action, except as to certain evidence which he considered useless; but he declined to direct any inquiry as to damages.

EDINBURGH

EDINBURGH SCHOOL OF PHARMACY AND CHEMISTRY.—This school has just been closed, after a very successful session. All the pupils passed the examinations for which they presented themselves. The classes were attended by students from the University, Royal College of Surgeons, and Royal Veterinary College. It is, we believe, contemplated to add to the premises in Marshall Street, in consequence of the demand made by students for whom the school was intended, as also by medical students, for auxiliary instruction in the various branches of their profession. Dr. Bell's department has been unusually successful, from the number of patients who have had to be attended at their own homes.

EXETER.

FIRE AT AN OIL MERCHANT'S.—A great fire occurred on the premises of Messrs. J. L. Thomas & Co., wholesale oil merchants, on July 12. The damage done was estimated at 40,000*l.* The firm was insured in several offices.

GLASGOW.

VIOLET POWDER.—In a recent report to the Glasgow Town Council, Dr. Russell, the officer of health, comments on an analysis of three specimens of violet powder made to ascertain whether this article was mixed with arsenic. It appeared that one specimen was pure, consisting entirely of starch; that another was mixed with hydrated sulphate of lime (plaster of Paris); and that the third was mixed not only with that material, but with French chalk. Dr. Russell said it was evident that plaster of Paris was quite opposed to the purposes for which the powder was intended, being an irritant. The motive for the adulteration lay in the difference of cost of the materials, powdered starch costing 3*s.* per cwt.; white arsenic, 10*s.*; fine French chalk, 10*s.*; and plaster of Paris, 2*s.* 6*d.*

HEREFORD.

AN EXPERIMENT WITH CREOSOTE.—On July 19 a tank of 2,000 gallons of creosote, which was being conveyed from Birmingham to South Wales, burst at Hereford and ran into the river Wye, killing a great quantity of salmon, trout, and other fish.

LEWES.

A SEVERE SENTENCE ON A CHEMIST.—At the summer assizes held here last month a chemist named Henry Charles Darley, of Russell Square, Brighton, was tried before Lord Justice Thesiger, along with a surgeon named Robert Charles Moon and a woman named Julia Brown, described as a herbalist. All were charged with having administered drugs to certain women with an intent to procure abortion. A woman on whom it was alleged the chemist and surgeon had operated having died, those two were indicted for murder; but the counsel for the prosecution having admitted that the evidence connecting their acts with the woman's death was not sufficiently conclusive, the prisoners were acquitted on that charge and tried for the minor offence of administering noxious drugs with intent to procure abortion. Both through their counsel pleaded guilty. The case against the woman Brown rested solely on the evidence of a woman to whom she had administered drugs, and who was therefore an accomplice in the crime.

The Lord Justice said it had been a rule adopted for centuries never to commit on the evidence of an accomplice without confirmation, and therefore it would be his duty to direct the jury to acquit the accused.

The jury, however, apparently did not understand the necessity for this course, and consulted together, upon which

The Lord Justice said,—Probably you do not understand. The witness might herself have been indicted upon the charge of using the drug with intent to procure abortion, and the rule

require some corroboration of the evidence of an accomplice. Slight corroboration might be sufficient, but here there is no absence of it, and it is your bounden duty to acquit the prisoner.

The Lord Justice, in passing sentence upon the prisoners who had been convicted, spoke in severe terms of the character of their crime and the detestable traffic they had carried on, taking advantage of the fears and miseries of the wretched women who vented to them, and wringing from them every shilling they had by the promise of remedies which were either delusive or impious. Such crimes, there was reason to fear, were far too common, and they were of the utmost mischief to society; and there was often a difficulty in proof, it was the more necessary to make examples of any who were convicted of such crimes. drew a distinction between the case of Moon, who was a geon and a member of an honourable profession, and whose conduct, therefore, was all the more criminal; but upon both sentences must be severe and exemplary, and therefore sentenced Moon to 15 years' penal servitude, and Darley to 10 years'.

LIVERPOOL.

A LINTMAKER'S CLAIM FOR BAD BLEACHING.—At the Crown Court of the Liverpool Assizes on August 6, before Lord Chief Justice Cockburn and a special jury, Charles Newsome, lint manufacturer, of Ancoats, sued Messrs. Naggard & Co., who are cloth bleachers, carrying on business at Royton. The defendants had for a considerable time been entrusted by plaintiff with the bleaching of quantities of cloth, and the work, except in one instance, had always been satisfactorily performed. A large quantity of cloth was sent by plaintiff to defendants to be bleached in June, 1877, and he alleged that it was so unskillfully bleached that it was rendered practically useless. He, therefore, imed 173*l.*, the value of the cloth. For the defence it was urged that the plaintiff's machinery had either been unskillfully used or was defective, and that that caused the spoiling of the cloth.—The Jury, after a few witnesses had been examined for the defence, found for the defendants, on the ground that there had been no unskillfulness in the bleaching.

NEWCASTLE.

ROBBERIES OF NITRATE OF SODA.—On July 19 at the Newcastle Police Court William Miller (35), James Docherty (31), William Angus (34), James Gibbons (32), and William Douglas Wood (30), all Quayside porters except Wood, who was described as a labourer and horse dealer, were charged, on demand, with stealing 2 tons 3 cwt. of nitrate of soda, valued at 1*l.*, from the warehouse of Messrs. Scott Brothers, St. Lawrence, on April 27 last; 2 tons 2*1/2* cwt., valued at 35*l.*, from the warehouse of Messrs. Van Haansbergen & Usher, Close, on February 28 last, and 2 tons of nitrate of soda from the same warehouse on March 8 last.—In each case the warehouse was entered by false keys, and the soda removed in carts, which were engaged the night before by Wood and a man named Robinson, not in custody, from Mann Brothers, general cartmen, Heaton. It was proposed of to farmers at Jedburgh and Killingsworth.—The magistrates gave the following sentences:—Miller, six months; Docherty, seven months; Angus, seven months; Gibbons, seven months; and Wood, ten months.

The Pharmaceutical Society of Ireland.

THE monthly meeting of the Council of the Pharmaceutical Society of Ireland was held at the College of Physicians, Gildare Street, Dublin, on Wednesday, August 7, 1878, Professor Tickborne, President, in the chair. The following were present:—Mr. Allen, Mr. Boileau, Mr. Brunner, Dr. Collins, Mr. Goodwin, Mr. Hayes, Mr. Holmes, Mr. Oldham, Mr. Payne (Belfast), Mr. Whitla (Monaghan).

A letter was read from Professor Attfield, Honorary Secretary of the Pharmaceutical Conference, inviting the Society to nominate delegates for the forthcoming Conference. On the motion of Mr. Payne, seconded by Mr. Oldham, the following were appointed:—Mr. Allen, Mr. Boileau, Mr. Brunner, Dr. Collins, Mr. Goodwin, Mr. Hayes, Mr. Holmes, Mr. Oldham, Mr. Payne, and Mr. Whitla.

The other business was of an unimportant character.

FORMULÆ OF SECRET MEDICINES.

(Continued.)

The formulæ given below are translated (by special permission of the author) from a German collection compiled by Mr. Edward Hahn, Apotheker. The names following most of the formulæ are those of the authorities quoted for the analysis. The weights are almost invariably given in metric denominations. A gramme is equivalent to 15*1/2* grains. The prices quoted are the nearest English equivalents to the original retail price.

GENÖRÖL (manufactured by Apotheker C. Chop, Hamburg).—A bottle wrapped in tinfoil, containing a mixture of 2 grammes cajeput oil, and 16 grammes Provence oil. 1*s. 9d.*—Schädler.

GENÖRÖL (Dr. Méne Maurice).—A mixture of 30 grammes Provence oil, 3 grammes camphor, 8 drops cinnamon oil, and 15 drops acetic ether, coloured with alkanet. 6*s.*—E. Hoyer.

GENÖRÖL (Dr. John Robinson).—1,000 parts salad oil (sunflower oil and poppy oil), 15 parts camphor, 6 parts cajeput oil, 1 part sassafras oil, 1 part bergamot oil, 1 part geranium oil. 90 grammes, 15*s.*—Hager.

GENÖRÖL (Dr. Seydler).—Provence, mixed with poppy oil, perfumed with camphor and oil of cajeput, and coloured red with alkanet; with it is some camphorated wadding.

GERBSTOFF-POMADE—TANNIC ACID POMADE—POMADE TANNIQUE ROSÉE (Filliol & Andoche, Paris).—For dyeing the hair, preventing its falling off, and the formation and recurrence of scurf and other disorders of the scalp. 30 parts of fat, perfumed and containing suet, 3*1/3* parts flowers of sulphur, 11*1/3* parts sugar of lead, without a trace of tannic acid. 160 grammes, 6*s.*—Hager. According to Hildwein a reddish preparation consisting of 69 grammes hog's lard coloured with alkanet, 4 parts each stearin and yellow wax, 4*5* parts sugar of lead, 7*5* parts bergamot oil. 80 grammes, 9*s.* or 10*s.* Recent composition:—11*4* grammes sugar of lead, 7*5* grammes flowers of sulphur, 100 grammes perfumed fatty matters. 4*s. 9d.*—Manno.

GESUNDHEITSBLUMENGEIST.—SANITARY SOUL OF FLOWERS (Wald, Berlin).—A mixture of spirit, 500 parts; tincture of aromatic, 5 parts; oils of bergamot, lavender, and rosemary, of each 2 parts; oil of thyme, 3 parts; oil of spearmint, 1 part.—Hager.

GESUNDHEITSKRÄUTER LIEBERSCHE—LIEBER'S HERBS OF HEALTH—BLANKENHEIMER THE—BLANKENHEIMER TEA—Herba Galcopsis Grandiflorae Concisa (Yellow Hemp Nettle). 375 grammes, 3*s.* to 4*s.*

GESUNDHEITSKRÄUTER-BITTER—SANITARY HERBAL BITTERS.—An indispensable household remedy for every family, for colic, stomach-ache, cramp in the bladder, flatulence, loss of appetite, nausea, chronic liver diseases, constipation, and diarrhoea; also as a soothing agent for infants (Gottschlich). The fluid contains in 100 grammes the soluble portion of about 8 grammes opium. 3 bottles, each of 25 grammes, 3*s. 9d.*—Hager.

GESUNDHEITS LIQUEUR—SANITARY LIQUEUR (Pavel & Co., Berlin).—Swedish elixir of life, with rhubarb in place of the aloes, made into a liquor with sugar and spirit.—Hager.

GESUNDHEITS-LIQUEUR, NEUER BERLINER—NEW BERLIN SANITARY LIQUEUR (Apotheker Emil Trotz).—An unpleasantly-tasting spicy schnapps, containing 18 per cent. of sugar. Leaves an after-taste of aloes. 250 grammes, 1*s. 1*1/2*d.*—Hager.

GESUNDHEITSPILLEN—GRAINS DE SANTÉ, OU GRAINS DE VIE, DU DOCTEUR FRANCK—DR. FRANCK'S GRAINS OF HEALTH.—Silvered pills, containing 1 part gamboge and 4 parts aloes. 60, 1*s. 8d.*—Hager.

GESUNDHEITS RATAFIA—SANITARY RATAFIA (F. W. Kraft, Berlin).—For removing all stomach, chest, and bowel complaints, indigestion, colic, diarrhoea, vomiting, flatulence, dysuria, and affections caused by chills. A clear brown schnapps containing, in 250 grammes by weight, 75 grammes sugar, 105 grammes water, 100 grammes strong spirit, 40 grammes each of tincture of orange peel and tincture of orange berries, 2*5* grammes each tincture of cloves and tincture of wormwood, 1 drop oil of peppermint, 5 drops acetic ether, and some drops of carami. 1*s.*—Dr. Horn.

PARIS EXHIBITION.

SPECIAL REPORTS.

JOHN RICHARDSON & Co.—Messrs. Richardson & Co., of Leicester, are perhaps the most persevering publicists connected with our trade. Not content with inserting a casual advertisement in one or other of the medical or pharmaceutical periodicals, we can hardly open one of them without finding in a prominent place some announcement of their goods; they also circulate annually a finely-printed quarto price-current, which, beyond mere price-lists and unauthenticated assertions of the value of their manufactures, contains copious extracts from papers published during recent years by eminent and independent writers. They divide their exhibit into nine classes, of which the first five are of interest to pharmacists, while the others are more important to shippers and colonists. Among the medical specialties the most novel is perhaps the Hypnopoeitic, literally, sleep creator—a preparation of opium which Dr. John Haddon, of Newcastle, has declared, in the *Medical Times and Gazette*, produces the sedative effects of opium without the headache, nausea, and constipation which too often accompany them. It has the same strength as the Tinct. Opii of the *Pharmacopœia*. We notice also the Ozonic Ether Ointment, a preparation devised by Dr. John Day, of Geelong, with whose name the readers of *THE CHEMIST AND DRUGGIST* must be familiar. Dr. Day recommends this ointment for the treatment of scarlet fever. He has treated fifty-one cases with it alone, and in each the result was a cure. In only four of the houses did the disease spread. The Soluble Pearl-coated Pills of this firm are too well known to need description; but the inspection of the immense variety here shown suggests a difficulty. When pills were uncoated and showed their naked ugliness the druggist could distinguish the different kinds by the colour and smell. Now all is changed. Two pills are more alike than two peas, and if they should by chance get mixed, the only way to distinguish them is to cut them in half. It is true that when this is done it is impossible to mistake one for another, but it would be convenient if this were made unnecessary.

MORSON & SON.—Conspicuous among the splendid alkaloids and chemicals here shown are three chemical curiosities, which, whether intentionally or not, are an honourable *puff oblique*. If these people make such unimportant things as ammonium bichromate, manganese nitrate, and potassium borotartrate in such large quantities and such splendid crystals, what an immense business in the commoner chemicals they must have, and how excellent must be the quality of their goods! Such are the reflections of anyone who inspects this and similar exhibits. The ammonium bichromate has, we believe, no commercial or medicinal use. A semi-scientific toy has been made by saturating bibulous paper with a solution of it, and drying. When this is ignited the bichromate is decomposed, and the chromic oxide liberated assumes tree-like or "dendritic" forms. The borotartrate of potash, though comparatively a stranger here, has long been contained in the French "Codex" and in several other continental pharmacopœias. It is used as a purgative in doses of $\frac{1}{2}$ oz. to 1 oz. In England it is occasionally used as an excipient for pills containing a large quantity of crystalline matter, such as chloral hydrate. It owes its binding powers to a curious property. When a concentrated solution is left for a time, if it be strong enough, it will suddenly solidify, and at the same moment it increases in bulk, very probably breaking the vessel containing it. In 1867 Mr. Morson brought this phenomenon before the evening meeting of the Pharmaceutical Society, and Dr. Redwood then made some lengthy remarks on it, proving that the change was not due to the assumption of the crystalline form. At that time its use in pill-making was, we believe, unknown, and we do not know that that use has ever been connected with this property. Beyond the beauty of its crystals, which makes it a fitting companion for the two bodies we have mentioned, nitrate of manganese has no remarkable characters.

SOUTHALL BROS.—The cod-liver oil manufactured by this firm is too well known to need remark. But their case contains two other series which add much to its value. At the back we see coloured illustrations of the fishes from which the oil is most usually extracted, and in front, in a row of vessels, is a specimen of oil split into its constituent compounds, each compound having a vessel to itself. Cod-liver oil is so thoroughly established as

a remedy, and is used in such a limited number of diseases, that we conceive with difficulty that our quite recent ancestors did not know it. Certain it is that before the year 1841 it was rarely used in this country. It is true that so early as 1766 Dr. Kay, of Birmingham, cured a case of rheumatism by its external use; and that by the common people of many of our fishing centres it was esteemed still earlier as a remedy for the same disease, given either internally or externally. But at the first-named date Dr. J. Hughes Bennett published a "Treatise on the Oleum Jecoris Ascoli as a therapeutic agent in certain forms of gout, rheumatism, and scrofula." He had acquired his knowledge of it in Germany, and tells us that in spite of persistent inquiries he was only able to find genuine cod-liver oil at three British houses: Messrs. Jones & Co., Leadenhall Buildings, Gracechurch Street, London; Messrs. Duncan & Flockhart, and Mr. Macfarlane, of Edinburgh. Besides rheumatism and gout he recommended it in rickets, consumption, and scrofula. The numerous substitutes which have been proposed for this oil show well how greatly all this is changed. Nearly all of them are of animal origin, but we must not stop to enumerate them. The fish from which the oil now found in commerce is obtained is said by the British Pharmacopœia to be *Gadus morrhua*, Lin. In the United States Pharmacopœia it is said with stricter accuracy to be derived from that fish, "and other species of *Gadus*." Messrs. Southall give a practical commentary on this by displaying the portraits of the cod-fish (*G. morrhua*), the pollock (*G. pollachius*), the coal fish (*G. carbonarius*), the burbot (*G. lota*), the ling (*G. molva*), and the dorse (*G. cellarius*). The chemical substances which cod-liver oil contains are margaric, stearic, and cetyllic acids, all of which are white solids; oleic acid and volatile acids, which are liquids; glycerine and biliary matters, and gadine. These are shown in the relative proportions in which they are contained in the oil, and form a very instructive series. Besides these bodies cod-liver oil contains minute quantities of iodine, bromine, and phosphorus. To each of these its medicinal properties have been referred, but the minute quantities contained in the oil, the difference of opinion among authorities, and the fact that other animal oils are found to produce similar effects, seem to prove sufficiently that cod-liver oil is useful chiefly as an easily-digested fat. We cannot say that no one makes oil so well as Messrs. Southall, but it is certain that in any modern search for the oil, the name of Messrs. Southall Brothers would be in the list of those who supplied the best in the market. But the firm does not piu its reputation to cod-liver oil alone. In a smaller case we notice some new pharmaceutical preparations. Liquor emetinae is a preparation of ipecacuanha, which sooner or later, and in some form or other, is sure to come into general use. That exhibited by Messrs. Southall is prepared from the alkaloid of the root. It is somewhat expensive, but it is always of definite strength, and it does not deposit. The "Powdered Extracts" exhibited are intended to remove two inconveniences: the change in the strength of the ordinary preparations, caused by the evaporation or absorption of water, and the difficulty of weighing accurately a small quantity of a moist and sticky substance. They are the ordinary extracts dried in a vacuum and made up to their original weight by the addition of an inert powder, such as sugar of milk. "Soluble Meat" differs from other preparations, in containing not only the matters soluble in water, but all the constituents of the meat except fat. The fibrie, gelatine, and albumen are made soluble by a process of artificial digestion. In the *Lancet* for November 11, 1865, Baron Justus Liebig used these words, "Were it possible to furnish the market at a reasonable price with a preparation of meat, combining in itself all the albuminous principles, together with the extractive, such a preparation would have to be preferred to the *Extractum carnis*, for it would contain all the nutritive principles of meat." Messrs. Southall claim that their preparation fulfils all the conditions here laid down.

YOUNG'S PARAFFIN LIGHT AND MINERAL OIL CO.—This is one of the most attractive displays in the British section. Unusual care seems to have been taken to produce harmonious effects. Brightly-coloured candles relieve the blank whiteness of most of the products; plate glass and mirrors light up the case, but are not so prominent as to make it seem that the paraffin and other goods are only intended to show off the glass; and the vessels which contain the fluids seem to be chosen for their fitness and elegance rather than for their showiness and cost. Statistics are commonly thought dry and tedious, but if our readers will try to gain a vivid idea of the meaning of the

ures we now give they cannot fail to be interested. Let them remember that within little more than a generation shale was a less substance. Let them remember that the progress of arts has in most industries enabled a man to turn out twice as much work as his father did, while at the same time the increase of population has increased the number of workmen in employment. Let them try to realise the great improvement in the comfort of the lower and middle classes, with the introduction of paraffin and its companion illuminators produced, and then let them ponder the dimensions of this industry.

There are 233,000 tons of shale dug every year from the 12 pits belonging to this company. 2,100 persons manipulate it, aided by 12 engines of 3,495-horse power. From this mass of shale 40,000 gallons of oil are distilled, and this, with 1,640,000 tons more, is purified at the works. The capital of the company is 600,000*l.*; the total annual value of the products at the present market price is 500,000*l.* These products comprise 500,000 gallons of naphtha, 4,000,000 gallons of burning oil, 1,035,000 gallons of heavy mineral oil, 1,000 gallons of intermediate oil, 6,190,000 lbs. of crude, and 40,000 lbs. of refined paraffin, and 3,800,000 lbs. of candles. Besides this 1,150 tons of sulphate of ammonia are annually extracted, the products of the vegetation of the shale increasing the food crops of the nineteenth century. This century has been called the era of the utilisation of waste products. But it is quite as remarkable for the production of new "waste products." The useless shale is made to provide necessities thousands, and comforts for millions, but at the same time "shale residue" accumulates round the works, and "acid tar" and "soda tar" await utilisation within. "Shale residue" is the substance remaining in the retorts after the process of distillation is concluded. It consists mainly of silicate of alumina, iron, and carbon. No use on any scale of consequence has yet been found for it, but specimens of ammonia, alum, and sulphate of iron, prepared from it, and of waste sulphuric acid, are exhibited. We have not space to dwell on the series of chemical bodies here displayed. Those who are ever questioning the value of the continued researches in organic chemistry cannot better be answered than by asking them to account for the severance with which such firms as the one before us display products of those researches side by side with such valuable commonplace as candles and illuminating oils.

The questions as to the price and comparative qualities of commercial articles displayed are either beyond the scope of report or too much a matter of opinion to be safely included in it. We have probably said enough to draw all necessary attention to the firm and its manufactures.

AVORY & MOORE.—Gelatine preparations, or Lamelles, are striking features in this display. A known quantity of gelatine is taken, and a known quantity of a medicine in a concentrated form is incorporated with it *secundum artem*. The gelatine is then spread into a sheet and divided, so that each division contains a convenient quantity of the medicine. A sheet, three inches by two, and of insignificant thickness, will contain 24 doses of the juice of aconite or belladonna and other drugs, or with more powerful medicaments, such as opium or atropine, the dose may be included in a morsel a tenth of an inch square and of a thickness which requires a second decimal place to express its value in inches. It is curious that these preparations have many useful characters. An emigrant setting out for the backwoods may carry with him in a pocket book no larger than a lady's card case, two dozen doses of as many different drugs. A doctor, starting on his rounds, may have in his waistcoat pocket blisters, narcotics, tinctures, atropine for dilating, and eserine for contracting the pupil of the eye. The traveller may carry with him in all his wanderings a thousand of the daily doses he needs to retain his health. Neither case are there bottles to be broken, or powders or ointments to be weighed or measured, or to deteriorate in changes of climate. Many physicians now order medicines containing one ingredient. It is quite possible that the next generation will look on such preparations as tinct. camph. co. as curiously as we regard the mithridates, and as simplicity is largely adopted, so will these preparations become more popular. That the preparations are very elegant this case is a convincing proof, and when we first inspected them we were astonished at the number of drugs which had already been prepared in this form. The Lamelles cantharidis deserve a special note. This blistering gelatine is in sheets which can easily be cut to the required size. When applied it is almost

entirely absorbed by the skin, very little has to be removed, so that one of the most painful features of the ordinary blister is much modified. For cleanliness these "lamelles" bear the same relation to the common application that mustard papers bear to mustard plasters. The other pharmaceutical exhibits of this firm are not characteristic. They are excellent in quality, and embody recent discoveries, but they are not especially "Savory & Moore's." Those druggists who possess a shipping or outfitting connection will do well to inspect the medicine chests exposed here. One has a special interest as a curiosity. It is the chest supplied to Mr. H. M. Stanley, and used by him on his brilliant journey through the African continent.

FIRE AT A CITY DRUG WAREHOUSE.

THE wholesale drug store belonging to Messrs. Hodgkinson, Prestons & King, situated at 88 Leadendall Street, was almost completely destroyed by fire on the night of July 15. The staff had been at work on the previous evening till about half-past eight on export orders, but no gas had been lit, and everything was left in apparent security. About 12.30, however, a policeman observed flames issuing from the warehouse, and these soon got a very strong hold, the blaze attracting engines from all parts of London, until there were as many as twenty congregated near the premises. The building occupies three sides of a square, forming a courtyard which is approached by a gateway leading from Leadenhall Street. Adjoining the warehouse at the back are Messrs. Dakin Brothers' premises, and touching these are the stores of Messrs. C. J. Hewlett & Co. Messrs. Dakin Brothers' premises were a good deal damaged by water, and to some extent by fire and smoke. The greater part of Messrs. Hodgkinson, Preston & King's warehouse was gutted, and in the morning there were some five feet of water in the basement. The building was a very old one, and many of the massive old wooden pillars and beams kept their position bravely through the flames. The roof was filled with bottles of castor oil, as is usually the practice in wholesale drug stores, and most of those on the few portions of the roof which did not fall in remained intact. None of the partners were informed of the fire during the night, and their first acquaintance with the disaster was made when they reached the city next morning. The damage done is roughly estimated at 20,000*l.*, which, we believe, is fairly well covered by insurances. Messrs. Hodgkinson, Prestons & King at once took some large vacant premises in Bury Street, at the back of their old warehouse, and in a few days they were again executing orders.

A LADY ON THE EFFECTS OF OPIUM.

JUST fifty-seven years ago Thomas De Quincey, the "opium eater," wrote this characteristic sentence: "Upon all that has hitherto been written on the subject of opium, whether by travellers in Turkey (who may plead their privilege of lying as an old immemorial right) or by professors of medicine writing *ex cathedra*, I have but one emphatic criticism to pronounce—Lies! lies! lies!" A little further on he says, "Therefore, worthy doctors, stand aside and allow me to come forward and lecture on this matter." He is ecstatic in describing the "pleasures of opium," but when we exercise a little the analytic mind of which he boasts so often, we find the pleasures he describes resolve themselves, first, into sitting in the gallery of the opera to hear Grassini sing and Italian women speak a language he did not understand; and secondly, pacing the markets on a Saturday night and watching poor people buy the necessaries and scanty comforts of their life.

Whether had he lived till now his opinion of his own works and those of Turkish travellers would have altered we cannot say. We must confess that his description of his charmer seems to us a failure, but not from the cause which injures so many others. All teachers of science know how ready the inexperienced are to put down the conclusions of an investigation without describing the steps which led to them. A young analyst will say that he found lead, but will not mention the white sulphate, the black sulphide, and the yellow iodide. So with descriptions

of the effects of opium. We are told that it is stimulating and narcotic, that it excites pleasurable emotions or the reverse; but how the effects show themselves we are left to imagine.

Our readers must pardon us for making so long a preface to the extract we will now give from the recent book, entitled "The People of Turkey." The authoress is a consul's daughter who has dwelt twenty years in the country, and can converse in their own language with Turks, Greeks, and Albanians. Our readers must judge whether the account given by this lady bears more marks of truth than that of De Quincey. She is undoubtedly mistaken in ascribing her sensations in part to poppy oil, but this is an insignificant matter.

"During a flying visit I paid to Kara Hissar, in Asia Minor, I took up my quarters at the house of an opium-growing grandee. The dinner offered to me was good, and even refined, but for a slight but peculiar flavour to which I was unaccustomed. I partook of it heartily; and afterwards, in order to please my hostess, accepted a cigarette. Presently, I felt a strange languor creeping over me, my head whirled, my ears began to tingle, my eye-sight dimmed, and my eyelids heavily closing, I soon found myself in the fool's paradise of opium-eaters. All sorts of sweet dreams took possession of my imagination, crossed by the most ludicrous thoughts and desires. I imagined that trains were running down my arms; next my travelling-boots, which I had exchanged for slippers, attracted my attention, and although not very large, they took to my deluded vision the proportions of a grotto, towards which I made a desperate rush, and soon fell exhausted with the efforts I made to enter it. My hostess took the form of a rat, from whose presence I vainly tried to escape. I went towards the open window, where the pure night air somewhat refreshed me, and the twinkle of the myriad bright stars raised my mind to higher thoughts, and sensations of an indescribably delicious character took possession of me. I became poetical, and surprised my entertainers by my declamations, which, needless to say, were quite unintelligible to them. I finally retired to rest, and sleep overtaking me consigned all to oblivion. On awaking next morning I felt uncomfortable; in fact, I was ill. The meal of which I had partaken had been cooked in poppy oil, always used for the purpose in that part of the country, and said not to have any effect on the inhabitants, who are accustomed to it from childhood. The cigarette, it appeared, was also strongly impregnated with the same narcotic" (Vol. ii. pp. 44-46).

THE DENTISTS ACT.

THE Dentists Act received the Royal assent on July 22. Subjoined is a full summary of its provisions:—

REGISTRATION.

From and after August 1, 1879, a person shall not be entitled to take or use the name or title of "Dentist" (either alone or in combination with any other word or words), or of "Dental Practitioner," or any name, title, addition, or description implying that he is registered under this Act, or that he is a person specially qualified to practise dentistry, unless he is registered under this Act.

A penalty of 20*l.* may be inflicted on any person infringing this section; but this does not apply to legally-qualified practitioners. Nor shall a person be deemed guilty of an offence under this Act—

- (a) If he shows that he is not ordinarily resident in the United Kingdom, and that he holds a qualification which entitles him to practise dentistry or dental surgery in a British possession or foreign country, and that he did not represent himself to be registered under this Act; or
- (b) If he shows that he has been registered and continues to be entitled to be registered under this Act, but that his name has been erased on the ground only that he has ceased to practise.

Prosecutions under the Act may only be instituted by, or with the consent of, the Medical Council, a branch council, or one of the medical authorities represented in the Medical Council.

A person registered under this Act shall be entitled to practise dentistry and dental surgery in any part of Her Majesty's

dominions, and from and after August 1, 1879, a person shall not be entitled to recover any fee or charge, in any court, for the performance of any dental operation, or for any dental attendance or advice, unless he is registered under this Act, or is a legally-qualified medical practitioner.

The following are entitled to registration:—

Licentiates in dental surgery or dentistry of any of the medical authorities.

Dentists registered abroad, whose certificates shall be satisfactory to the Medical Council; and—

Any person who at the passing of this Act is *bonâ fide* engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmaeuy.

Duly licensed persons desiring registration are to send to the General Registrar the document evidencing their licence, with statement of name and address, and other particulars, if any, required for registration.

Other persons desiring to be registered must forward to the Registrar, before August 1, 1879, the following declaration, or one to that effect:—

I _____ residing at _____ hereby declare that I was *bonâ fide* engaged in the practice of dentistry at _____ at the date of the passing of the Dentists Act, 1878.

(Signed)

Witness

Dated this _____ day of _____ 18—.

Any false or fraudulent representation made wilfully to procure registration, either by the principal or by any person aiding him may, be punished by imprisonment for twelve months.

The Registrar may, if he sees fit, require the truth of such declaration to be affirmed in the manner provided by Wm. IV, 5 and 6, ch. 62.

British subjects residing abroad or foreigners resident in England are not to be disqualified.

If a person with a foreign certificate be refused registration he may require the Registrar to give the reasons for such refusal in writing, and he may then appeal to the Privy Council, if such reason be that his certificate is not considered sufficient guarantee by the Medical Council.

A register, giving names and addresses of persons registered is to be published annually under the authority of the Medical Council. The Medical Council is authorised, in the case of a person proved to have been guilty of infamous or disgraceful professional conduct, to erase his name from the register.

The fee for registration, if application be made before January 1, 1879, is not to exceed 2*l.*; after that date it is not to exceed 5*l.*

EXAMINATIONS.

The Royal College of Surgeons of England shall continue, and the other medical authorities may commence, to hold examinations in dentistry and dental surgery, granting certificates of fitness. The course of study and the examinations are to be subject to the control of the Medical Council. No particular theory of dentistry or dental surgery is allowed to be a test or condition of admission to examination or of receipt of certificate.

A certificate under this Act shall not confer any right or title to be registered under the Medical Act, 1858, in respect of such certificate, nor to assume any name, title, or designation implying that the person mentioned in the certificate is by law recognised as a licentiate or practitioner in medicine or general surgery.

In the event of any union of medical authorities taking place, provision is made for enabling dentists' certificates to be granted by any medical board thus formed after due study and examination.

The register is to be evidence in any court.

Persons registered under this Act are to be exempt from jury and militia service, if they so desire.

If, of the moneys received under this Act, there be any surplus after defraying the expenses of the execution of the Act, it is to be applied towards the support of museums, libraries, or lectureships, or for public purposes connected with the profession of dentistry or dental surgery, or towards the promotion of learning and education in connection with dentistry or dental surgery.

The pupil of a dentist, whose term would expire before January 1, 1880, will be eligible for registration; and the General Medical Council may by special order grant dispensa-

ions to any dental students or apprentices whose professional ducation may have commenced before the passing of the Act.

The Dental Register will not be open for a month or six weeks. No steps can or need be taken to procure registration until then, and as soon as possible full details of the necessary formalities will be published. W. J. Miller, Esq., Registrar to the General Medical Council, 315 Oxford Street, will probably be the Registrar under the new Act.

TENICIDES.

SEVERAL short notes on this subject have recently appeared in medical and pharmaceutical periodicals.

Dr. Leared says he cured a case in which kamala, male fern, and kusso had failed by the following remedy:—Sp. terebinth., iij.; tinct. hyoscyami, 3ss.; mucil. acaciae, 3ss.; Aq. chlorof. ad ii. The draught was taken on an empty stomach, the bowels were opened soon after, and a worm with its head was expelled. It proved to be a *taenia medio-cannellata*. He says, "It is necessary to be cautious in giving turpentine. All inconveniences, however, are guarded against by the administration of a brisk purge if the turpentine does not speedily act on the bowels."

Professor Mosler would disgust the parasite with his home, and then cook him on his way out. The diet is first regulated, food being given which is supposed to be distasteful to the tape-worm—bilberry tea, herrings, sour cucumbers, salted meats. The intestine having been, as far as possible, emptied by laxatives, a dose of the extract of pomegranate bark is administered, prepared from the fresh bark, and then a large quantity of warm water is injected into the rectum. The theory is that the worm, previously brought down into the colon, is prevented by the water from attaching itself to the wall, and is brought away by the liquid on its escape. It is asserted that in every case in which this treatment was adopted the head of the worm was removed.

M. Bouchut, of the Children's Hospital, Paris, digests them *in situ*. He has found that not only ascarides, but fragments of *taenia*, when placed in a weak alcoholic solution containing 35th of amylaceous pepsine, are digested by the fluid in the course of twelve hours. On submitting the conclusion drawn from his experiments to the test of practice at the Enfants Malades, M. Bouchut found that the solution of pepsine was ninently successful. The *Medical Examiner* says:—"If his experience be confirmed a valuable addition will be made to our knowledge as well as to infantile therapeutics."

Dr. D. J. Macgowan, of Shanghai, tells us that a wine made of a certain Chinese serpent is esteemed by the natives as an anthelmintic.

Dr. Bröking, of San Remo, tells us that the people of Northern Italy use the seeds of the pumpkin (*Cucurbita maxima*), both as an article of food and a remedy for tapeworm. Their purgative action is but slight, and produce neither nausea nor pain in the abdomen, but they appear to destroy the worm. If the patient has fairly good teeth, he may be directed to eat an ounce and a half of the seeds, or the same quantity may be beaten up into a paste with sugar and water. The seeds should be taken early in the morning, the patient having fasted since the noon of the previous day, and should be followed by a dose of castor oil at an interval of three or four hours. It is asserted that the head and cervical segments of the worm seldom fail to appear in the stools. It is worthy of notice that seeds of pumpkins grown in lower latitudes do not possess vermicide properties; some seeds obtained in Paris and in Germany did not produce the desired effect. There is, however, no difficulty in obtaining the seeds from San Remo, for Signor Vacchieri, of the Farmacia internationale, has been good enough to promise to forward a supply gratis to any hospital or dispensary. The seeds have a sweet and pleasant taste, and, when beaten up with a little sugar, are easily taken by children.

In a recent German publication we are told that black oxide of copper is the surest and best cure for tapeworms. It is given in pills made according to the following formula:—

Grammes

Cupri oxydatis nigri	6
Calcariae carbonic	2
Boli albi levigatae	12
Glycerin	10

Take 120 pills. Take 2 four times daily.

It is said to have this disadvantage, that the patient is denied the pleasure of exhibiting his tormentor.

It is suggested that Pelletierin (referred to on another page) will be found a powerful remedy for this trouble. •



ARSENICAL VIOLET POWDER.

ON August 7, at the Central Criminal Court, before Mr. Justice Field, Henry George King, a wholesale druggist and draysalter, at Kingsland, was put on his trial upon six indictments for the manslaughter of young children, by causing violet powder which was largely impregnated with arsenic to be used upon their bodies.

This case has been removed to the Central Criminal Court from the Essex Assizes at the instance of the prisoner, under the provisions of Palmer's Act, on the ground that, owing to the feeling that existed against him, he could not have a fair trial in that county, where a great number of the deaths appeared to have occurred.

Mr. Poland and Mr. Straight conducted the prosecution, on behalf of the Treasury. The prisoner was defended by Mr. Warner Sleigh and Mr. Crispe.

The indictment which was proceeded with charged the prisoner with the manslaughter of the child of a woman named Ringrose, which died before it was baptised.

The prisoner had for several years been in the habit of manufacturing the article known as violet powder, which is extensively used on young children. This powder should be composed of starch, orris root, and some descriptions of perfume, but it was stated that in the year 1875 the prisoner commenced the manufacture of some cheaper description of violet powder, in which terra alba or sulphate of lime was substituted for starch, and this article was sold by him to a very large extent in penny packets, and the packets were labelled on the outside, "For the nursery. Superior violet powder, warranted free from grit." The ordinary article manufactured by the prisoner appeared to be perfectly harmless, but about twelve months ago these powders were found to be largely impregnated with arsenic, and the result was that a great number of children of poor persons residing at Loughton, in Essex, where the powders were extensively used, lost their lives, that result being undoubtedly attributable to the large quantity of arsenical poison contained in the violet powder sold by the prisoner. The fact of so many children dying in such an extraordinary manner attracted the attention of the local authorities in the first instance, and eventually the Government interfered in the matter, and an inquiry took place at the instance of the Treasury, and in the result the prisoner was committed upon the present charges. The child whose death was now the special subject of inquiry was the daughter of a woman who resided at Shacklewell, and was about 10 days old at the time of its death, and it appeared that the powder supplied by the prisoner had been constantly applied to it from the time of its birth. A post-mortem examination by Dr. Tidy, the professor of chemistry, led to the discovery that the liver and other vital organs were largely impregnated with arsenic, and the death was clearly proved to be the result of arsenical poisoning. The portion of the penny packet of violet powder which remained was also analysed, and this was found to contain arsenic in the proportion of 38 per cent., a quantity quite sufficient to account for the results that followed. The prisoner was examined as a witness before the Coroner, and he appeared anxious to give all the information in his power, and declared that he was entirely ignorant as to the way in which the arsenic had got into the violet powder, and when his attention was called to the fact that the violet powder sold by him contained a large quantity of arsenic, he directed his traveller to get back all the packets he had sold to his different

customers, and the whole that remained in his own possession was destroyed. The case for the prosecution rested entirely upon the assumption that the prisoner had been guilty of criminal negligence in selling a powder containing such a dangerous ingredient to the public.

The facts stated above were proved at length, and among the witnesses Dr. Tidy, Professor of Chemistry at the Loudon Hospital, gave evidence. He explained that white arsenic was a very much heavier article than terra alba, and it appeared to him that a person of ordinary skill and caution, while making up packets of this description, ought to have detected the difference between the two articles. He said that he believed that a portion of the arsenic found in the body of the deceased child had been absorbed through the skin when applied in the ordinary way by the mother, and that another portion had flown off into the air while the child was being dusted with the powder, and that this portion had been taken into the system through the mouth.

In answer to questions put by Mr. Warner Sleigh in cross-examination, Dr. Tidy said that the body was very much decomposed, and although it had been generally considered that arsenic was a preventative of decomposition, he had heard of cases where it had not had that effect, and he therefore did not regard it as a positive fact that the presence of arsenic would delay or prevent decomposition.

A long statement, made by the prisoner to Roots, the detective officer, who served him with the summons to attend and give evidence before Mr. Humphreys, the coroner, was put in and read. In this statement the prisoner described the articles used by him in the manufacture of the violet powder, the principal ingredients being corn flour, terra alba, orris root, potato starch, and rose perfume. He denied most positively ever having had any arsenic in his possession, and he stated that he could not in any way account for the arsenic getting into the violet powder; but he suggested that upon one occasion, when he sent to the shop of Mr. Fox, a wholesale chemist and druggist in the Bethnal Green Road, for 28 lbs. of terra alba, that quantity of arsenic had been sent to him by mistake.

Mr. Henry Fox, junior, was called to disprove the truth of this suggestion of the prisoner, and he stated that he did not remember the prisoner having been supplied with 28 lbs. weight of terra alba, and did not think it possible that such an occurrence as sending arsenic by mistake for terra alba could have taken place. In reply to Mr. Warner Sleigh, in cross-examination, the witness said that the wholesale price of arsenic was 11*l.* or 12*l.* per ton, whereas terra alba was not worth more than 3*l.* or 4*l.* per ton, so that, on the score of cheapness, there was no inducement for the prisoner to make use of arsenic instead of terra alba.

When the case for the prosecution was closed, the Judge intimated that he could not see what criminal negligence had been proved against the prisoner. The foreman of the jury said a majority of the jury held the same opinion, but Mr. Justice Field said a majority was not sufficient.

After the counsel had addressed the jury on both sides,

Mr. Justice Field, in the course of a short summing up, said that whatever might be the result of the inquiry, he thought there could not be any doubt that from the very first the prisoner had met the charge most fairly, and that he had not only given all the information that he could in reference to the matter, but the moment he was informed that there was some dangerous ingredient in the violet powder manufactured by him, he took measures to get back all he could of it, and destroyed it. He then explained that before the jury would be justified in convicting the prisoner of this offence they must be satisfied that he had been guilty of serious, gross, and criminal neglect.

The jury at once returned a verdict of Not Guilty.

Mr. Poland said that after the full inquiry that had taken place, he did not think it advisable to proceed with any of the other indictments against the prisoner.

Verdicts of Not Guilty were therefore taken in all these cases, and the prisoner was ordered to be discharged.

SULPHATE OF LIME IN VIOLET POWDER.

At the Salford Police Court, on July 19, before Messrs. C. L. Clare, W. W. Goulden, and J. Lowcock, Mr. Edward Brook, chemist and druggist, Cross Lane, and Messrs. Gill & Son, chemists and druggists, Broad Street, Pendleton, were summoned for having sold a certain drug, to wit, violet powder, which was

not of the nature, substance, and quality of the article demanded. The Town Clerk (Mr. C. Moorhouse) appeared for the prosecution; Mr. Herbert, barrister, of Birmingham, representing the Chemists and Druggists' Association, appeared for the defendant Brook, and Mr. Tanner, barrister, Birmingham, for Messrs. Gill.

The Town Clerk said the defendants were summoned under the Sale of Food and Drugs Act, 1875, the 13th section of which stated that the word "drug" should include medicine for internal or external use. As violet powder was used to soothe the skin when in an excoriated condition, he should hold that it was a drug within the meaning of the Act. The question had been raised elsewhere as to the difficulty of showing intrinsically what violet powder ought to be. In several standard works violet powder was described as starch-powder scented. In the present cases it would be shown that instead of powdered starch, they obtained gypsum (sulphate of lime) scented. There was this difference between them, that starch was a vegetable, and gypsum was a mineral. There was also a difference in the prices of the two materials, of which he would produce evidence; and as it would be shown that gypsum was the cheaper of the two, it would probably account for its introduction into the manufacture of what was known as violet powder. He thought that if he could show that violet powder was, and ought to be, powdered starch, and if he could show that that name had been applied to an article which was injurious to the skin, he should ask by what right such an article as the one in question was sent forth. Starch was an expensive article as compared with sulphate of lime, and therefore it would perhaps be easy to see the advantages to the seller. If sulphate of lime was to be considered violet powder, one might take a bath-brick, powder it, and call it violet powder.

Joseph Thompson, inspector appointed under the "Sale of Food and Drugs Act," deposed to obtaining packets of violet powder from Mr. Brook's shop, in Cross Lane, and from Messrs. Gill & Sons, Broad Street. He sent part of the packets to Mr. Bell, the public analyst for the borough.

Mr. Joseph Carter Bell, the public analyst for the borough, said he received the two samples from the previous witness. He analysed Mr. Brook's sample and found it contained 75 per cent. of sulphate of lime. There was no starch.

The Town Clerk: Do you know what violet powder is?—It ought to be made of starch, scented with orris root or some other perfume. Witness continued he had examined fourteen or fifteen samples, nine of which contained sulphate of lime. Gypsum (or sulphate of lime) cost about 30*s.* a ton, and starch cost about 20*l.* a ton. Since he had been in practice he had examined altogether about seventy samples of violet powder. He had not examined any powder before May this year, and his reason for beginning to analyse samples was, cases had been brought into the London courts, the powders having been adulterated with arsenic. He did not find any arsenic in any samples that he had analysed in Salford.

Mr. Herbert: You say this is a drug?—Yes, I do.

What is a drug?—Anything that is applied as medicine.

What is medicine?—I should say anything that is given for internal or external use for soothing or healing purposes. He did not find any orris-root in the samples he had analysed. He found traces of iron aluminised. He would not say there were no traces of orris-root. He was not aware that there was any set standard for violet powder. It was not in the *Pharmacopœia*.

Mr. John Tatham, M.D., L.R.C.P., Medical Officer of Health for the borough, said he instructed the inspector to obtain the samples of violet powder. It had frequently been used in his family, and it should consist mainly of starch. It was sometimes said to contain orris-root, and he believed sometimes did. He had not, until recently, heard of its having any other ingredients. In the course of his reading and study he had not come across violet powder differing from that. He was confirmed in his opinion of what violet powder should consist of by "Royle's Materia Medica," published in 1876, which defined violet powder as starch scented with powdered orris-root. Mr. Chavosse, in his book "Advice to Mothers," gave a similar definition. He had examined microscopically the specimens of violet powder analysed by Mr. Bell, and he found that the powder consisted of mineral matter, and he could not discover the existence of starch. The effect of what he considered to be proper violet powder on an excoriated skin would in his opinion be soothing. That which he saw in the hands of Mr. Bell, he should consider, would irritate the skin.

By Mr. Herbert: He did not know of any set standard for constituents of violet powder. Starch was always present and formed the main constituent. Violet powder was the name given to a powder to be applied to an excoriated skin, and in my case he should consider powder containing sulphate of lime would do harm. He was surprised to hear that sulphate of lime had been called violet powder; but he would not be surprised to hear that lycopodium was used solely for violet powder in Germany.

This concluded the case for the prosecution.

Mr. Herbert, in addressing the Bench for the defence, said it this was a point they wished to decide so that henceforth no prosecutions would be stopped. He would call the attention of the Bench to the fact that none of the witnesses so had been called for the prosecution had stated that they received any complaints respecting violet powder, and it, until an unfortunate accident occurred of arsenic having been found in a violet powder sold in the South of England, no prosecutions were not thought of. The prosecution was instituted by professional men for professional purposes, he tested in a professional way, and no one had made any complaint, except the analyst. The analyst had not discovered that he had expected to find; but he found something which was unacquainted with the chemists' trade and with his limited knowledge, considered did not constitute violet powder. The section of the act under which they were summoned said that "no person should sell to the prejudice of the purchaser any article of food or any drug which was not of the nature, stause, and quality of the article demanded." In the first place they must prove that the article was to the prejudice of the purchaser. Then, if they proved that, they must show that was a drug. On these points he should show them conclusively, in the first place, that the article was not sold to the prejudice of the purchaser. He called attention to the case decided in the Queen's Bench Division before the Lord Chief Justice and Justice Mellor, in the case of *Sandys v. Maule*, in which it was urged by Mr. Willis, Q.C., for the appellant, that it was always to the prejudice of the purchaser if he did not get the genuine article, and the Lord Chief Justice pointed that, as the inspector had purchased a sample of an article for analysis, and had consumed no part of it, he had not been prejudiced. The inspector in this case had purchased the article merely for analysis, and therefore was not prejudiced. Contended that what Dr. Tatham had defined as a drug was a metie. The doctor himself had stated that there was more in one kind of violet powder. If there was more than one kind, the case must fall to the ground, for there was no standard which they could be judged. In several prosecutions under the Act he had found the British Pharmacopoeia had been taken as the authority for standards; but where did they find a standard for violet powder? What the public demanded was pure starch, but violet powder; and the fact that 17 out of 20 samples analysed by Mr. Bell were adulterated with sulphate of lime showed that that mixture was approved as violet powder. Persons who had used the mixture for years did not complain, but the analyst now assumed the position of champion of the uninjured public, and brought his client, though he was not what he was entitled to sell, and that which he had probably never seen, into a court. If the powder was as innocuous as stated, there must be hundreds of thousands of babies who had been irremediably injured. Nobody was injured at all, the powder was not sold to anybody's prejudice. If no one had been prejudiced, he did not see how an offence had been committed. He should prove beyond doubt that the violet powder in other countries, and particularly in Germany, was made of stuff other than starch, so that violet powder could be generally understood as consisting of starch. It was led violet powder because it had a perfume of violets. He proceeded to call witnesses for the defence.

Mr. Tanner, on behalf of Messrs. Gill & Son, said he asked the bench to dismiss the summons against his client, because there existed no formula for the manufacture of violet powder, there was nothing in the evidence given to show that the article then in question was not violet powder to all intents and purposes. He gathered from the evidence of Dr. Tatham that violet powder really was a soothing powder. The question, it seemed to him, was whether violet powder must be made of starch, and whether, if it were made of anything else, it would not be within the meaning of the Act.

The Chairman said the Bench were agreed that violet powder is a drug, and they also overruled the question raised by Mr.

Herbert, whether the Inspector having purchased it only for analysis could be said to have been prejudiced.

Dr. Samuel Crompton, a physician in practice in Manchester, was called for the defence and examined by Mr. Tanner. He said that violet powder was cosmetic. He did not think that sulphate of lime would be injurious if used as violet powder. In answer to Mr. Herbert: Taking it all round, witness preferred it to starch.

In reply to Mr. Leigh Clare witness said he had, until recently, supposed that violet powder was composed of starch.

Mr. Lewis Siebold, analytical chemist, Fellow of the Chemical Society, editor of the "Year Book of Pharmacy," and lecturer at the Manchester School of Pharmacy, said he had examined portions of the samples of the powder which Mr. Bell had analysed. That which he had analysed had been obtained from Mr. Brock. It consisted mainly of hydrated sulphate of calcium (sulphate of lime). He was not surprised to find hydrated sulphate of calcium. He considered that a violet powder should be a dusting powder, free from acidity and alkalinity. It must be an inert and impalpable powder. He had found the powder in question to be perfectly free from anything injurious, and it was proper violet powder in his opinion. In Germany lycopodium was used as a dusting powder. He had heard of no new diseases caused by the use of powder similar to that which he had examined.

Mr. Alfred Bird, F.C.S., Worcester Street, Birmingham, said he was the manufacturer of the powder which the defendants were summoned for selling. It had been made by his firm for about twenty years, and about a ton a week of it was made. It had been supplied to all parts of England, and he had not had one complaint respecting it.

This concluded the defence.

The Bench then retired, but returned in a few minutes, when Mr. Leigh Clare said that the Bench were unanimous in the opinion that there should be a conviction of 20s. and costs in each case.

Mr. Herbert gave notice of appeal against their decision.

Fifteen other summonses had been issued against dealers, but the Town Clerk intimated that as the object was chiefly to obtain a decision these would not be proceeded with.

ALLEGED DEFICIENCY OF ALCOHOL IN A TINCTURE.

At the Romsey Police Court, on Friday, July 19, before the Mayor (J. F. Osborne, Esq.) and William Godfrey, Esq., William Blissett, chemist and druggist, was summoned on the information of Superintendent Kellaway with selling adulterated tincture of jalap.

Mr. Henry Glaisyer, of Birmingham, solicitor to the Chemists and Druggists' Trade Association of Great Britain, appeared for the defence.

Superintendent Kellaway deposed to having purchased from the defendant 3 ounces of tincture of jalap for the purpose of analysis, which he divided into three parts, and to having left one portion with the defendant, and another with Mr. Arthur Angell, County Analyst, whose certificate was as follows:—

HANTS CONSTABULARY.

SALE OF FOOD AND DRUGS ACT, 1878.

To Superintendent E. Kellaway, Romsey.

I, the undersigned, Public Analyst for the County of Southampton, do hereby certify that I received, on June 6, 1878, from self a sample of tincture of jalap for analysis, and have analysed the same, and declare the result of my analysis to be as follows:—

I am of opinion that the said sample contained the parts as under, or the percentages of foreign ingredients as under.

The strength of the spirit equal to 16 per cent. under proof, or 40.66 per cent. of alcohol by weight.

OBSEVATIONS.

This tincture should be made with proof spirit; there is, therefore, a deficiency of alcohol to the extent of at least 9 per cent. by weight. Three per cent. may fairly be allowed for loss of alcohol during preparation of tincture.

As witness my hand this 13th day of June, 1878,

(Signed) *ARTHUR ANGELL*, Public Analyst.

Mr. Glaisyer asked that the analyst might be put into the witness box by the prosecution, but the authorities refused to adopt this course.

Mr. Glaisyer said he had given notice under the 21st section of the Sale of Food and Drugs Act, 1875, for the analyst's attendance, and contended that the case for the prosecution was

under these circumstances incomplete, unless he was called by them.

The Bench decided against this contention on a point of law, and Mr. Glaisyer intimated that it might be necessary for him to ask for a case upon the point for decision in a Superior Court.

Mr. Angell was then called by Mr. Glaisyer, and on entering the witness box inquired of the Bench who would be responsible for his fee and expenses.

The Chairman of the Bench said that as he was called by the defendant's solicitor, the plaintiffs could not be expected to pay his fee or expenses.

Mr. Glaisyer said that he supposed under the circumstances the Association he represented would pay the fees, but he considered it an exceedingly unjust interpretation of the law.

Mr. Angell was then sworn and examined by Mr. Glaisyer, when he said that he was Public Analyst for the county of Southampton, a Fellow of the Institute of Chemistry, and of the Microscopical Society. The certificate produced was his, and the contents were true—he had the sample personally from the superintendent—he did not weigh the quantity of tincture he received—tincture of jalap was made by steeping jalap bulb in spirits—he was not a pharmacist—he did not know anything about making tincture of jalap. The tincture should contain 19 per cent. of alcohol and 51 per cent. of water—this is the liquid portion—he could not tell how much solid matter there should be in 100 parts of tincture of jalap—he had allowed 3 per cent. for solids as stated in his certificate—there would be solid matter in tincture of jalap—he believed the quantities should be 2½ ounces of the bulb to a pint or litre of spirit—he was not certain which—he did not weigh the solid matter—he took a weighed quantity of the sample and distilled it—he then took the distillate and made it up to the same bulk as the sample—he then took the specific gravity; the result was the distillate ranged 16 under proof—the solid matter was the active principle—he believed the spirit was of use medicinally—he believed there was sufficient pure jalap to perform the function of the medicine—he believed the absence of alcohol did not at all affect the efficacy of the drug.

Mr. Glaisyer then asked the Bench if he need carry the matter any further, when the Chairman said they had decided to dismiss the case.

Mr. Glaisyer applied for costs, which were refused.

BANKRUPTCIES AND LIQUIDATIONS.

W. BEATSON, Rotherham.

A PETITION has been filed in the Sheffield Bankruptcy Court, praying for the appointment of a receiver in the estate of Mr. W. Beatson, manufacturing chemist, West Hill, Rotherham, and also carrying on business in co-partnership with Mr. J. H. Mycock, under the style of William Beatson & Co., manufacturing chemists, at the Chemical Works, Rotherham. The liabilities were stated to amount roughly to about 50,000*l.*; and the application for appointing Mr. Kidner, of the firm of Messrs. Allott & Co., as receiver was supported by the affidavit of a creditor to the amount of 900*l.* The Court granted the application. Subsequently, however, the Master of the Rolls appointed Mr. J. H. Mycock, accountant, Masbro', who is in partnership with Mr. Beatson, receiver of the joint estate, and will carry on the chemical manufacturing business as usual. The petition which has been filed is for the liquidation of the private estate of Mr. Beatson only, and the difficulties arose through the stoppage of a London house with which Mr. Beatson had had large transactions.

R. R. KELLY, Chemical Manufacturer, &c., 59 Mark Lane.

THE debtor, Richard Roper Kelly, carrying on business under the firm of R. R. Kelly & Co., filed his petition for liquidation on July 15, and on the following day Mr. Jukos applied to the Court for the appointment of Mr. W. F. Jack, accountant, 16 Mark Lane, as receiver of the estate, and for an interim order restraining further proceedings in numerous actions. The liabilities were returned at about 35,000*l.*, and the assets consisted of stock, furniture, and fixtures of the estimated value of 1,200*l.*, and book debts 150*l.* Proceedings were pending at the suit of the following creditors:—The Leeds and County

Bank, for 302*l.* 2s. 6d.; Thomas Adams & Co., 16 Cambridge Street, Birmingham, 200*l.*; Ruston, Thorne & Co., Catherine Court, Tower Hill, 41*l.* 1s. 10d.; the South-Eastern Railway Company, 200*l.*; Mr. C. B. Sles, 150*l.* 1s.; the Unstone Coal and Coke Company (Limited), 183*l.* 17s. 6d.; the Tottenham and Edmonton Gas Light and Coke Company, 389*l.* 16s. 3d.; the Tunbridge Gas Company, 43*l.* 10s. 8d.; the Isle of Thanet Gas Light and Coke Company, 73*l.* 12s. 7d.; and the London Gas Light and Coke Company, for 4,000*l.* It was necessary that the estate should be protected, and Mr. Registrar Hazlitt accordingly appointed Mr. Jack to the office of receiver, and granted an interim injunction. The following is a schedule of the principal creditors:—

	£ s. d.
Beatson, W., Chemical Works, Rotherham ..	8,826 5 7
Wallace, H., & Co., New Road, Battersea ..	8,293 15 6
London Gas Light and Coke Company, Southampton Street, W.C. ..	5,127 0 0
Edinburgh Life Assurance Company, King William Street, E.C. ..	1,295 0 0
Bell, J. C., Kensal Clough, Higher Broughton ..	1,000 0 0
South Eastern Railway Company ..	556 10 1
Birmingham Banking Company ..	500 0 0
Millar, Dr., Brafield, Upper Norwood ..	500 0 0
Marshall, D., 21 Abercrombie Place, Edinburgh ..	440 0 0
Tunbridge Wells Gas, Light, and Coke Company ..	431 6 3
Grey & Marten, St. Mary Axe, E.C. ..	414 0 0
Davies, M., 172 Temple Row, Birmingham ..	400 0 0
English and Scottish Law Life Association, Edinburgh ..	400 0 0
Wiegel, A., 21 Mark Lane ..	400 0 0
Queenborough Chemical Company, Billiter Street, E.C. ..	400 0 0
Tottenham and Edmonton Gas Company ..	389 6 3
Redhead, J. A., 5 Mark Lane ..	330 0 0
Swansea Gas, Light, and Coke Company ..	322 14 5
Sheffield and Rotherham Banking Company ..	300 0 0
Wilson, J. & R., Londonderry ..	300 0 0
Bowen, H., Morriston, Swansea ..	300 0 0
Kelly, Alexander, 59 Mark Lane ..	300 0 0
McGavin & Co., Barge Yard, E.C. ..	300 0 0
Tunbridge Gas Company ..	295 7 2
Morris, F., Plough Bridge, Rotherhithe ..	280 0 0
Thornton, A., Gas Office, Swansea ..	250 0 0
Wood, A. H., Gas Works, Hastings ..	200 0 0
Adams & Co., Cambridge Street, Birmingham ..	200 0 0
D'Arey, J., chemical company, Cattle's Grove, Birmingham ..	200 0 0
Freeman, G. F. & Co., Cooper Street, Manchester ..	193 0 0
Unstone Coal Company, St. Paneras ..	183 17 6
Marshall & Snellgrove, Vere Street, W. ..	160 0 0
Rother Iron Company, Rye ..	150 0 0
The Romford Local Board ..	147 19 0
The Isle of Thanet Gas Company ..	125 7 8
Skipper & East, St. Dunstan's Hill, E.C. ..	100 5 3
Hanson, Son, Evison & Barter, Botolph Lane, E.C. ..	100 0 0
Wolff & Stern, 124 Fenchurch Street ..	100 0 0
The Hastings Gas Company ..	100 0 0
Allen, J. E., & Co., 61 Great Tower Street ..	100 0 0
The Phoenix Gas Company, Bankside ..	100 0 0
Lawes Chemical Company, Mark Lane ..	95 10 6
Churchill & Williams, Tunbridge Wells ..	93 1 7
Anderson & Co., 38 Crutched Friars ..	89 3 2
Masbach Brothers, Mayence-ou-Rhine ..	80 0 0
Sale, Seddon & Hilton, Manchester ..	72 10 0
Peacheley, J. W., 59 Mark Lane, ..	70 14 11
Jacobs & Sons, 485 New Cross Road ..	64 12 3
Errard & Co., Great Marlborough Street, W. ..	64 11 9
Carver, A. J. & H. H., Hart Street, E.C. ..	60 0 0
Ross, J. M., 79 Gracechurch Street ..	60 0 0
Jack, W. F., 16 Mark Lane ..	55 0 0
Smith, Alhert, Rye ..	51 0 0
The Chester Gas Company ..	50 0 0
Moore, W. R. C., 59 Studley Road, Clapham ..	50 0 0
Brandom Brothers, Mark Lane ..	46 16 0
The Great Western Railway Company ..	45 18 9
Calvert & Co., Hope Foundry, Huddersfield ..	45 0 0
Ruston, Thorne & Co., 10 Catherine Court, E.C. ..	40 4 7
The Rye Gas Company ..	38 18 4
J. Stannah, Southwark Bridge Road ..	38 16 0
Stock Brothers & Taylor, Birmingham ..	26 18 6
Staffordshire Bolt and Nut Company ..	25 15 10
Wingfield, E. B., St. Leonards-on-Sea ..	25 0 0
Munro, J. E. C., Temple ..	25 0 0
Bellthorpe, Bruier & Co., 21 Mark Lane ..	24 17 6
Horne, C., Denmark Row, Rausgate ..	23 7 0
Plummer, E., 31 Robertson Street, Hastings ..	21 19 3
Standen & Co., 16 Waterloo Place, S.W. ..	21 15 0
Readwin, T. A., 28 Bolt Street, Manchester ..	20 0 0
The Greenock Gas Company ..	18 11 9
Graham, W., & Sons, Trig Lane, E.C. ..	16 12 10
North Central Waggon Company, Rotherham ..	16 12 6
The Birmingham Great Western Arcade Company ..	15 15 0
Taylor, H. E., High Street, Swansea ..	15 3 6
The London and North-Western Railway Company ..	15 0 0
Burling, W., 4 Martin Villas, Margate ..	14 2 2
Macdonald Brothers, 10 Mark Lane ..	13 11 0
Hawkhurst Gas Company ..	13 10 0
Clark, —, Rye ..	10 15 0
Sherborough Gas Company, Tunbridge Wells ..	10 12 6
Niper, J., Conglehurst, Hawkhurst ..	10 0 0

The interim injunction restraining actions has since been continued pending the liquidation.

J. & J. C. KERNEY, Chemical Manufacturers, Stratford. In this case was noticed in our last issue. The adjourned first meeting was held on July 24, before Mr. Registrar Hazlitt. A statement of the joint affairs was rendered, showing debts £2,98s. 4d., and no assets, the following being the principal debtors:

	£	s.	d.
Smith, P. C., 7 Carpenter's Road, Stratford	120	0	0
Miles, Mrs. E., 5 Park Place, Stratford	40	0	0
Moy, T., Angel Lane, Stratford	21	12	6

The proceedings resulted in the appointment of Mr. P. C.ith (the principal creditor) as trustee, with a committee of protection consisting of Mr. G. Bish, 125 High Street, Stratford, and Mr. Edward Kerney, of The Marsh, Burford Road, Stratford. November 8, at eleven, was the date fixed for the public examination of the bankrupts.

F. MORRIS, Tar Distiller, Plough Bridge, Rotherhithe.

The debtor filed his petition for liquidation on July 22, and on the following day Mr. G. T. Robinson applied to the Court for the appointment of Mr. C. E. Soppet, accountant, Trump Street, Cheapside, as receiver of the estate and for an interim injunction staying further proceedings at the suit of the following creditors:—Mr. Wm. Beatson, Rotherham, for the recovery of 100l. 2s. 2d.; Messrs. R. Thorne & Sons, Mark Lane, 1s. 11d.; the Isle of Thanet Gas Light and Coke Company, 1s. 14s.; and the London Gas Company, 50l. 6s. 3d. The liabilities were estimated at 7,000l., and the assets consisted of stock 500l., and book debts about 50l. Mr. Registrar Murray made the desired appointment and granted an interim injunction. The following is a list of the principal creditors:

	£	s.	d.
Groome, C. S., Irthingborough Lodge, Higham	1,025	0	0
Ferrers	501	6	3
London Gas Company, 26 Southampton Street, Strand	500	0	0
Kelly, R. R., & Co., 59 Mark Lane	470	0	0
Bell, J. C., Kensal Clough, Higher Broughton	400	0	0
Belcher, J., the Mint, Rye	375	0	0
Chemical and Ammoniacal Liquor Company (Limited), Mark Lane	300	0	0
Slee, S. & Co., Bermondsey	200	0	0
Tunbridge Wells Gas Company	195	12	3
Horner & Fell, Skipton	193	0	0
Freeman, G. F., & Co., Cooper Street, Manchester	142	12	8
Tunbridge Gas Company	121	3	10
West Kent Gas Company, Southwark Bridge Road	100	2	2
Beatson, Wm., Rotherham	100	0	0
Hanson, Son, Evison & Barter, Bexley Lane	100	0	0
Lancashire and Yorkshire Bank	100	0	0
McGavin & Co., Barge Yard, E.C.	100	0	0
Marshall & Snellgrave, Oxford Street	100	0	0
Wolf, Stern & Co., 124 Fenchurch Street	100	0	0
Weigel, A., 21 Mark Lane	100	0	0
Masbach Brothers, Mayenne-on-Rhine	80	0	0
Isle of Thanet Gas Company, Ramsgate	73	14	0
Bowen, H., Morriston, Swansea	72	0	0
Smith, A., Rye	51	0	0
Thorne, R., & Sons, 12 Mark Lane	50	1	11
Simpson, W. H., Higham Ferrers	37	4	3
Morris, C. B., Plough Bridge, Rotherhithe	25	0	0
Newton & Son, Bankside, S.E.	15	0	0
Cole, J. R., 28 Hazler Road, Brixton Rise	10	10	0

The interim injunction has since been continued pending the liquidation.

RKER & AMISS, Manufacturing Chemists, Clayhall Works, Old Ford.

An adjudication in this case was made on July 4, upon the petition of Mr. Henry Carter, coppersmith and brassfounder, of Old Ford Road, and upon the application of Mr. W. M. Baker, behalf of the petitioning creditor, the Court subsequently appointed Mr. F. Scott, of 82 Hemingford Road, Islington, to office of receiver and manager, in order that the business might be continued. The first meeting under the bankruptcy was held on July 25, before Mr. Registrar Hazlitt, but, in consequence of the non-attendance of a quorum of creditors, a trustee could not be appointed, and the proceedings were adjourned.

W. POLLARD, Chemical Manufacturer, 9 Mincing Lane. His failure occurred in December last, and the creditors afterwards accepted a composition of 5s. in the pound in satisfaction of their debts. An application was recently made to the Court, behalf of Messrs. Lockwood & Leith, chemical manufacturers, Helens, for an order to enforce the provisions of the com-

position resolutions with respect to their debt of 517l. 12s. 8d. After some discussion the order was made.

GEORGE SEYDE, Chemist, &c., Willenhall.

A MEETING of creditors in the matter of proceedings for liquidation by arrangement or composition instituted by this debtor, trading as J. F. Seyde & Co., was held at the Peacock Hotel, Wolverhampton, on July 18, and in consequence of the unequal valuation, as it was thought, of the stock, the proceedings were adjourned for a week. Accordingly, those interested in the matter assembled at the Peacock, on July 25. Mr. Barclay (Southall Brothers & Barclay) was nominated chairman. Mr. Dixon, the receiver, read the statement of accounts, which showed liabilities 1,287l. 3s. 3d., assets 418l., less 24l. 2s. 2d. A composition of 4s. in the pound was offered on behalf of the debtor, which was refused; and the chairman stated that the stock had been considerably undervalued, and the offer was increased to 5s. 6d. in the pound, payable in two, six, eight, and twelve months, to be secured to the satisfaction of the chairman and Mr. Tildesley, the representative of Messrs. Colthurst & Harding, Bristol. The following is a list of the creditors:

	£	s.	d.
Brindley, T. R. B., Smethwick	28	0	0
Blundell, Spence & Co., Hull	12	9	3
Bettomley & Co., Birmingham	43	19	0
Bull, R. S., Stafford	32	0	0
Bikker & Brewster, Wolverhampton	15	0	0
Colthurst & Harding, Bristol	59	17	3
Hill, Evans & Co., Worcester	12	10	6
Harvest, W. & D., Upper Thames Street	11	16	3
Horniman & Co., Wormwood Street	14	16	0
Johnson, Roffey & Co., Lambeth	52	18	2
Johnson Brothers, Hull	54	18	5
Kendrick & Goode, Birmingham	12	13	0
Keen, Robinson & Co., Garlick Hill	29	19	6
Mason, Alfred, Willenhall	20	0	0
Nutting & Sons, Barbeian	22	4	4
Pattison, J. J., & Co., Birmingham	13	16	4
Parsons, F., St. Mary Axe	23	16	3
Price's Patent Candle Company, Battersea Works	15	10	7
Perks, C., Willenhall	20	19	0
Seyde, F. N., & Co., Bilston	50	0	0
Southall Bros. & Barelay, Birmingham	74	13	7
Sutton, W., & Co., Bow Cheshire	204	0	0
Staffordshire Joint-Stock Bank, Wolverhampton	120	0	0
Willenhall Gas Company, Willenhall	13	18	9
Banks & Son, Wolverhampton	4	10	0
Borax Company (Limited), Birmingham	1	1	0
Baxter, S., Willeuhall	10	0	0
Ellian, Jones & Co., Derby	5	15	10
Fleming & Son, Wolverhampton	7	0	0
Gardener, Thomas, & Co., Bristol	5	3	11
Holgrave, P., & Co., Liverpool	4	5	0
Hall, T., Coven	5	0	0
Husband Brothers, Birmingham	8	12	0
Hughes, William, Coven	6	12	0
Jones, Richard, Shifnal	7	10	0
Lilly & Adinsee, Birmingham	4	13	0
Lloyd, G. O., Wolverhampton	6	0	9
Moore, Vicus & Co., Liverpool	6	15	0
Mackay & Miller, Liverpool	7	0	6
Nash & Bibby, Birmingham	11	0	0
Nicholl, H. & J., Birmingham	6	13	0
Simmons, George, & Co., Birmingham	7	10	5
Saunders, Ayrton & Co., Liverpool	1	9	2
Story, Witty & Co., Hull	3	0	5
Shakeshaft & Playfer, Lichfield	7	10	0
Singleton, J., Wolverhampton	8	0	0
Story, Smithson & Co., Hull	3	11	7
Tomlinson, R., Birmingham	5	16	6
Vernon, J., & Co., Uttoxeter	4	6	3

With about 75l. more in small and local accounts.

HUGH WALLACE.

THE debtor is a manufacturing chemist at Battersea, and has recently filed a petition in the Wandsworth County Court. A final meeting of his creditors was held on August 6, at the Cannon Street Hotel, when the resolutions previously passed were confirmed. The statement of affairs showed that the claims of the unsecured creditors amounted to 12,967l. 3s. 8d.; there were also creditors wholly or partly secured to the amount of 5,060l.; but the value of the securities was estimated at 1,200l. beyond that amount. There were other liabilities amounting to 1,695l.; liabilities on bills, 1,410l.; and creditors for rent, wages, taxes, &c., 574l. The assets were:—Stock-in-trade, 1,475l. 11s. 9d.; book debts, 11,752l. 2s. 8d., estimated to produce, 1,258l. 9s. 6d.; cash in hand, 21l. 2s. 4d.; furniture at New Road, 50l.; furniture at Belmont House, 618l.; total assets, 3,423l. 3s. 7d.

The creditors agreed to accept a composition of 2s. in the pound.

pound, payable at the expiration of three calendar months after the registration of the resolutions, the amount to be secured by the assignment of the debtor's property to Mr. William Freeman Jack, of 16 Mark Lane, public accountant. The following were among the creditors:—

	£	s.	d.
Allin, J., 42 Lambeth Walk	27	2	11
Burham Brick Company	41	13	7
Burrough, J., Cale Street Distillery, Chelsea	7	14	0
Brunstead & Co., Nine Elms Lane	1	7	0
Brellitt & Co., Upper Thames Street	3	11	2
Beatson, Mr., Chemical Works, Rotherham	1,213	8	6
Bailey, Mr., The Pottery, Fulham	11	10	4
Bryan & Co., coal merchants, Nine Elms Lane	59	15	3
Cole, F., Cheney Walk, S.W.	5	10	6
Cosser, Mr., Aero Works, Belvedere Road	27	14	3
Car, Mr., Chemical Works, Leeds	302	0	0
Colebrooke, Mr., 44 Arlington Square	64	0	0
Chambers & Mann, 73 Great Tower Street	20	16	1
Cetti & Co., Brooke Street, Holborn	1	16	0
Chloralum Company, London Wall	3	4	2
Croggan & Co., Upper Thames Street	2	10	0
Chitty, Clapham	2	10	0
Directors of Contracts, Admiralty, Whitehall	51	0	0
Doolan, Mr., Leeds	40	0	0
Doulton & Watts, Lambeth	1	16	0
Dennis, Mr., Wandsworth Road	3	15	0
English and Scottish Law Life Assurance Company	650	0	0
Edwards, Mr., Upper Thames Street	1	8	0
Edinburgh Life Assurance Company	350	0	0
Fraser Brothers, Commercial Road, E.	590	5	9
Furnivall, J. W., Westminster	4	10	0
Gardner & Sons, Wandsworth Road	1	2	3
Gavie & Co., Aberdeen	5	3	5
Hyam, L., Gracechurch Street	13	10	6
Hanson, H. J., Clapham	1	11	6
Haynes & Sons, Wandsworth	13	17	8
Hecker, P., & Co., 14 Mincing Lane	11	14	8
Harris & Pearson, Stourbridge	18	4	0
Hart, D., & Co., Wenlock Road	94	13	9
Hancock, J. L., Goswell Road	18	2	4
Hall, J., Granary, Larkhall Road	1	5	0
Hosking, J., Lambeth	7	3	5
Howitt, D., 69 Kennington Park Road	40	0	0
Hayward, Tyler & Co., Whitecross Street	8	9	0
Hutton & Co., Whitechapel	3	17	3
Income Tax	37	10	0
Ingle, Cope & Co., Threadneedle Street	250	0	0
Joyce, E., Nine Elms Road	5	18	4
Jelly, Son & Co., Blackfriars Road	69	14	0
Johnson, Matthey & Co., Hatton Garden	338	18	9
Jackson, Mr., Laurence Pountney Hill	4	9	6
Kelly & Co., Lombard Court	37	0	0
Kitchen, —, Warrington	3	18	0
London, Chatham, and Dover Railway	1	18	6
Levy & Co., 26 Mark Lane	37	10	0
London Gas-light Company	50	0	0
London, Brighton, and South Coast Railway	3	7	9
Morris, W. C., Lambeth	18	16	8
Milard, J., Battersea	10	0	0
May & Mountain, Birmingham	64	0	0
May & Baker, Battersea	1	16	8
McGavin, Mr., Barge Yard, Brixton	4	4	0
Mowatt, Mr., Clapham	6	7	4
Newbold, E., Nottingham	8	16	0
Northern & Co., Vauxhall	30	13	5
Negretti & Zambra, Holborn	2	10	0
Nicholson & Co., Upper Thames Street	2	7	7
Parris, Mrs., Wandsworth	230	0	0
Phoenix Gas Company	10	7	9
Poor rates	29	5	10
Peake, W. J., Nunhead	8	6	8
Parish rates	53	17	8
Parish rates	9	19	6
Parkes & Lester, Old Kent Road	9	0	0
Powell & Sons, Whitefriars	3	8	4
Russell, James, & Sons, Southwark Street	46	1	6
Robinson, C., Blackwall	8	15	0
Sweeting, Dr., Clapham	24	2	6
Wenner, Chapman & Co., 36 Mark Lane	82	8	9
Southwark & Vauxhall Water Company	60	0	0
Sharp & Jones, Nine Elms Lane	2	12	6
Slipper, Mr., 87 Leather Lane	23	14	7
Sunderson, Clapham	1	7	6
Stobbs & Co., Gresham Street	3	14	0
Sheffield Building Society	4,500	0	0
Star Life Assurance Company	250	0	0
Tongi, Mr., Blackfriars	1	10	0
Vander, Heyde & Co., Great Tower Street	120	18	7
Voelcker, Dr., Salisbury Square	20	0	0
Wales, McCulloch, Ludgate Hill	10	16	0
Vickers & Burns, Upper Thames Street	3	0	0
Voile, Mrs., Bidborough Street	31	5	5
Witt & Law, Clapham	1	13	0
Wilson & Co., Mile End	26	3	6
Wright, Layman & Umney	17	19	6
West London Banking Company	730	0	0
Williams & Co., Moorgate Street	37	14	4
Watts & Blake, Newton Abbott	4	2	0
Wallace, H., jun.	50	0	0
Willis & Co., Clapham	1	10	0
Wallace, R. R. W., & Co., 61 Mark Lane	3	19	5
Wandsworth Local Board of Works	700	0	0
Young, H., & Co., Nine Elms Lane	7	7	4



THE PHARMACEUTICAL JOURNAL AND COUNTER PRACTICE.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—I hope that at the election for members of the Council of the Pharmaceutical Society in 1879 the members of the trade generally will bear in their recollections the editorial article in the *Pharmaceutical Journal* for July 13, 1878.

Anything more shameless from a society professing to guard the interests of the general body (not the select few) of a trade I think I never read.

As jealousy of the energetic new association seems the principal cause, let my brethren try (and if they try they will succeed) if they cannot have nearly all new members of the council next year, and, as a consequence, a new editor of the journal.

Let them propose plenty of good, willing, and energetic men—vote for none who are above stating their views to their constituents—let the country chemists to a man send in their voting papers, and rely upon it, Sir, that not only will success crown their efforts, but they will have reason to congratulate themselves upon the determination they have shown.

I am, Sir, your obedient servant,

A VERY OLD PHARMACEUTICAL CHEMIST,
"WHO DOES NOT LIVE BY PRESCRIBING."

CHEMISTS AND THE MEDICAL ACTS.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—Observing the remarks of the secretary to the Chemists' Trade Association respecting the petitions signed by chemists and druggists, and forwarded to the House of Commons, on behalf of counter prescribing—this is a step in the right direction, but it does not go far enough. Might it not be supplemented by placing in the hands of every retail chemist a petition for the same purpose, to be signed by the public who frequent their shops? I feel confident that a very large number would gladly sign it if the matter were placed before them. Such petitions could not fail to produce favourable results. If you consider this suggestion worth attention, will you be good enough to publish it in your journal, and others may take the matter up?

I am, Sir, yours respectfully,

CHARLES TROKE.

82 City Road, London.

CAN THE RETAIL DRUG TRADE BE SAVED FROM "GOING TO THE DOGS"?

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—Many letters have appeared in your widely-circulated columns, and also in the *Pharmaceutical Journal*, on the subject of "cutting" or underselling in the retail drug trade, but I have not met in any of them one practical suggestion for counteracting the serious and growing evil, which, if unchecked, threatens to ruin the prospects of half the druggists in the country. I think I can offer a suggestion, which, if acted on, will at least have a more telling effect than anything that has yet been suggested, and will probably destroy the evil so justly deprecated and denounced. Too much stress cannot possibly be laid on the fact that no lowering of the prices of drugs and chemicals can in any appreciable degree increase their consumption. Sell Epsom salts at 1d. per oz., or 4d. per lb.; castor oil, at 3d. or 1d. per oz.; Cockle's pills at 1s. 1½d. or 10½d. per box; give 2 or 6 "bilious" pills for 1d.—not a single dose more or less

be swallowed. Therefore, unlike the trading in other commodities, lowering the prices of drugs and chemicals simply has a lessening of the income of those who sell them, carrying with it no compensating result arising from increased competition by those who buy them.

I fear there are assistants who consider that their interests are antagonistic to the interests of their employers. This is a manifest and a grievous error. With artisans employed by large capitalists, to some extent such may possibly be the case. It may be to the interest of the workmen to obtain from their masters as much pay as possible for as little work possible. It may be to the interest of the masters to pay as little as possible for as much work as possible. But the relationship of master-druggists to assistant druggists is different. The assistants of to-day will be the masters of to-morrow—*their* interests are identical. Assistants, so to speak, are masters *embryo*, and whatever affects injuriously the interests of the one affects injuriously the interests of the other. And in this matter of a disreputable few endeavouring to aggrandise themselves at the expense of the respectable many, it were not difficult to show that the interests of assistants are more seriously assailed than are those of their employers. Many druggists now in business are able, if they please, to retire; others, if not in quite such independent circumstances, are at least too firmly established to view with apprehension the ties of a neighbour, who, having no confidence in his ability to compete with them in honourable rivalry, endeavours to steal away their legitimate trade by starting a "cutting shop." It will not unnecessarily occupy your space by showing at how much greater disadvantage young men commencing business, and desiring to carry on trade in a respectable and honourable manner, must be placed, than are their old-established contemporaries. This must be patent. But I wish to show that just as the assistants of to-day must eventually be the severest sufferers, if their enemies are to succeed in preying on the vitals of the trade, so with them lies the power of successfully waging battle against the accursed thing. Those men (if "men" be not a misnomer) are assistants' direst enemies: they threaten to blot out their fairest prospects and fondest anticipations; to destroy all hope of their succeeding in an honourable career. Then let every assistant druggist in the three kingdoms require to know, when treating for a situation, the prices that obtain at the establishment in which he is required to serve, and resolutely determine on no account whatever to accept service where the cursed thing is practised, and the occupation of the "cutters" will very soon be gone. Because it is next to impossible for any single-handed to do a sufficient trade as a druggist if the profits are cut down to those of a grocer: the services of one, if not two, assistants must be required to make the thing pay. Good situations are far more easily to be obtained nowadays than they were in the days of my assistantship, but had I been asked to take service in a co-operative store (which, happily, did not then exist), or to serve similar enemies to the profession in which I had cast my lot, I would indignantly have spurned the offer, no matter what remuneration might have been offered me; for I should have felt that in accepting I should forfeit all claim to be considered a man or a gentleman, and should "write myself down an ass" into the bargain! Those to whom I have not scrupled to point the finger of scorn are, as I have said, the assistants' worst foes, and I hope there is sufficient *esprit de corps* amongst the latter to combine as one man against the common enemy, determined to cleave him to the teeth and fight him to the death! It is their power to save what should be a noble profession and an honourable calling from "going to the dogs." They have only to will it, and they must win. It remains to be seen if they will.

Your obedient servant,

HAMPSHIRE.

"O WAD SOME POWER THE GIFTIE GIE US!"

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—It appears from the report of the "Council's proceedings" that the last meeting was a "little bit lively." I see that Mr. Fairlie said that the editor's recent remarks "might represent the opinions of a majority of the Council" or of "the majority of the Society," but I apprehend that when he used the doubtful word "might" he knew pretty well that the general opinion out

of doors is that they represent no such thing, but only the opinion of a few of the Council in general, and of two or three in particular. Now it fell to my lot during the late stir to have charge of one of the petitions to Parliament for the amendment of that ill-fated measure, and through my canvas I was brought into contact with nearly 100 chemists in my district, and obtained their signatures, a great number of them being members of the Society; and I can testify to the universally-expressed feelings of discontent and dissatisfaction at the course pursued by the editor of the journal and the clique who appear to inspire him. Many gentlemen expressed their disgust with the whole thing, and wished the Society at the bottom of the sea; and one ardent admirer would send the Council rather farther. He expressed a strong desire to "put them at a cannon's mouth and blow them all to the devil!" For my own part, I should be sorry if these strong measures were carried into effect, as I am an old member of the Society, and should have to go to the "bottom of the sea" with the rest of them; but I think that Mr. Editor and his *élite* clique ought to know that outside their little world there is a big world, and throughout that big world still continues to reverberate that angry growl, "What has the Society done for us?"

I am, Sir, yours truly,

NORTH LONDON.

THE PHARMACEUTICAL SOCIETY AND ITS MISSION.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—Can you or any of your readers inform me what the Pharmaceutical Society is? I find all my previous belief as to its origin, composition, and purposes completely upset by the recent action of its Council, and the articles in its journal. I had a crude notion that some years ago an attempt was made to bring the chemist under medical control; that upon a Bill being introduced into Parliament for that purpose, a few chemists met at a public house and laid the foundation of a society that was to guard the chemist against any action on the part of the medical profession, and to conserve the trading interest as it then existed. So explicit was this declaration, and so determined the effort, that a large proportion of the better class chemists at once hailed the opportunity of joining a defence association. Some extraordinary change must have taken place since then, for no one who reads the journal of the present day would suppose that the society consisted of a number of chemists associated together in defence of their rights and privileges. Either the society has altogether altered, or else it, as represented by the journal, consists only of a few dozen patronised dispensing houses, for whose especial benefit the other members contribute their annual subscription. For instance, the report of the Chemists' Annual Dinner in the journal of May 18, 1878, gives a fair illustration of my meaning. There are five columns of speeches, and the speakers who occupy more than four of them are Dr. Ramsey, Professor Williamson, Dr. Gladstone, J. Birket, Esq., Professor Wilson, Professor Odling, and Dr. Leard. It is true that Mr. Schaeft proposed "Science," Mr. Sandford the "Medical Profession," the Vice President the "Honorary Members," and Mr. Atkins the "Visitors." Otherwise no one would have known that the Chemists' Annual Dinner had anything to do with the chemists' annual trade. In this we have as distinct a proof as can be desired that the Pharmaceutical Society is a very different institution to the body of the members who bear its title.

The President at the last annual meeting, in the opening part of this address, exhibited almost childish delight in being allowed to rub shoulders with the shining lights who write prescriptions, and spoke as follows:—

"Anyone occupying the honourable position of your President is soon made conscious that it commands a certain amount of respect from other highly influential bodies. The courteous and distinguished manner in which your President is received by many public bodies, not only medical and scientific, but governmental, is not only gratifying, but has great significance."

Significance enough! and no doubt gratifying "to your President," but hardly satisfactory to the trading members, considering the price that is paid for such condescension. If the

Society feels thus highly complimented, the journal, as its monthpiece, naturally expresses its gratitude, and tries to prove to the profession that it has no sympathy with chemists who carry on their business in the way they have always done.

The Society, as represented by its journal, seems to me an *idea*. This idea consists of the few dozen chemists, who are so well supplied with prescriptions from these physicians whose sunshine they delight to bask in that they care not what becomes of the rest of its members. They think because they have no need to prescribe or enter into general retail, that the rest of the chemists should be debarred from entering into unholy competition with those apothecaries who keep open shop, because, for years past, they have been working their way with the aid of physicians to pharmacy proper, that all chemists should be able to live by the same means. Then it is rather hard upon the editor of the journal that the *Lancet* should do him the injustice to ascribe the very opposite advocacy to him, for no chemist would ever think of doing so. He reminds me of the old fable of the Bat, the Birds, and the Beasts. The journal which belongs to one class that ought to encourage and support us coquettes with the other, who heartily despises its pretensions, and will have nothing to do with it. It is palpable that if the Trade Association had not made itself a powerful instrument on behalf of the trade, it would never have obtained a word of support from the Society. Thanks to that association the Government has been correctly advised, notwithstanding opposite ideas conveyed by a president and two ex-presidents of another society. Thanks to the Trade Association members of Parliament have been made alive to the attempted monopoly of the apothecaries, and one of the most influential papers with members of Parliament, the *Morning Post*, has espoused the cause of the chemist on behalf of the general public. What I want to know is, Does the Pharmaceutical Society merely represent the emblem of pharmacy as it is desired, or the trade of a chemist as it exists? If it does not by its Council intend to stand up for its own members, and protect their business, then the sooner the members alter the representation on the Board the better for themselves and the trade.

It seems that, like Sabbatarians, who consider that man was made for the Sabbath, so these pharmacists imply that the chemist was made for the Society. But there are others who hold the opposite view—that the Society was made for the chemist; and if there are any now on the Council who were among the few who, in a humble manner, met in an unpretending place to uphold the rights of chemists, even they must be sensible that they are perverting the original design of the founders, and are playing a treacherous part towards their fraternity.

Yours, &c.,

A PRESCRIBING CHEMIST.

PURE AND METHYLATED CHLOROFORM.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

DEAR SIR,—With reference to the letter of Messrs. J. F. Macfarlan & Co., in the July issue of THE CHEMIST AND DRUGGIST, we beg to reiterate the statement we made as to our power to "discriminate easily and certainly between" pure and methylated chloroform, and we shall be happy to meet Messrs. Macfarlan & Co., to compare a Winchester quart of chloroform made from rectified spirit by Duncan, Flockhardt & Co., of Edinburgh, with one of methylated chloroform made by Macfarlan & Co., and obtained from a wholesale druggist, both secured by strip labels over the stopper.

We are, &c.,

Stirling Chemical Works,
West Ham, E., London.

DUNN & COMPANY.

TO IMITATE GROUND GLASS.—Put a piece of putty in muslin, twist the fabric tight, and tie it into the shape of a pad; well clean the glass first and then apply the putty by dabbing it equally all over the glass. The putty will exude sufficiently through the muslin to render it opaque. Let it dry, hard and then varnish. If a pattern is required, cut it out on paper as a stencil plate, and fix it on the glass before applying the putty, when proceed as above; remove the stencil when finished. If there should be any objection to the existence of the clear spaces, cover with slightly opaque varnish.

The Poison Cupboard.

"GIVE A DOG," &c.—At the end of June forty persons were poisoned at Kottinger by eating potted beef. It was found that the beef was much decomposed, but as it had been prepared in copper vessels the chief blame was of course assigned to the poor copper.

ANTIDOTE TO CARBOLIC ACID.—The Russian *Pharmaceutische Zeitung* mentions that Dr. Santfleben has used sulphuric acid in several cases of poisoning by carbolic acid with the best success, the phenol combining with the acid to form phenyl-sulphuric acid, which is not poisonous. He administered it in a mixture composed of diluted sulphuric acid 10·0, mucilage of gum 200·0, and simple syrup 30·0 grammes, in doses of a table-spoonful every hour.

COMPOSITION OF TIN-FOIL SPECIALLY DESIGNED FOR CHOCOLATE MANUFACTORIES.—MM. Charles Kopp and G. Engel. In these tin-foils lead was found in mere traces as compared with the so-called tin which is brought in contact with articles of food in England in the shape of tinned iron. One sample however, contained antimony to the extent of 6·111 per cent with 0·889 per cent. of arsenic. P. Casamajor states, in a later article, that the tin-foil so exclusively used in this country for wrapping articles of food contains about twice as much lead as tin.—*Chemical News*.

THE CHINESE GOVERNMENT AND OPIUM SMOKING.—A recent edict of the Chinese Government speaks of the people as foolish, coveting wealth, and forgetful of the injury that is being done by the cultivation of the poppy instead of cereals, and it enacts that for the future the cultivation of the noxious drug must cease; disobedience thereto to be visited with severe punishment. This edict applies to the whole of China. The district magistrate of Tientsin has personally visited the opium-smoking resorts, and closed them all. Soldiers and officials are strictly prohibited from smoking, under heavy penalties.

ORDEAL OF POISON.—The following case, recorded in the report of the Chemical Analyst for Bombay, 1877, indicates that the practice of ordeal by means of poison still lingers in India. A man lost some ornaments, and suspected his sister of stealing them. Under the advice of a "wise man," he put outside his door a copper pot with a lump of cow-dung in it, advertising his friends that he had done so, and that, if the thief put the ornaments into the pot, nothing further would be said. This failed. The wise man, therefore, assembled the neighbours, and an ordeal was instituted, each person being required to eat a small quantity of sugar. The result was that the sister did with symptoms of irritant poisoning, and that a grain and a half of arsenious oxide was found in the contents of her stomach.

FOWLER'S SOLUTION.—It has been discovered by Rouyer that freshly precipitated sesquihydrate of iron, although an antidote for arsenious acid (arsenic of the shops), fails entirely to counteract the action of arseniate of soda or arsenite of potassa (Fowler's solution), but that a mixture of a solution of the sesqui-chloride of iron and the oxide of magnesium will counteract the effect of these salts, as well as the arsenious acid itself, and hence this mixture is always to be preferred to the hydrate in cases of poisoning by arsenic. The officinal solution of the sesqui-chloride of iron should first be administered, and afterwards the magnesia. In one hour after the administration of the antidote, a cathartic should be given. In all cases acid drinks (such as lemonade) are to be avoided, since the compounds they form are soluble.

THE DETECTION OF PRUSSIC ACID.—A very simple method of showing that there is no free hydrocyanic acid in the kernels of peach, cherry, and plum stones, or bitter almonds, but that it is formed on heating the same with water, is given in the *Polytechnisches Notizblatt*. A long strip of Swedish filter paper is soaked in the tincture of gum guaiacum (1 to 20) and dried. It is next passed through a solution of sulphate of copper diluted 2,000 times, when the paper will not be changed at all in colour. A few freshly-pounded bitter almonds are put in a two-litre flask with water. On suspending in it the strip of test-paper above described, the paper will remain white, but, on pouring into the flask a single crushed bitter almond that has been warmed with water, the test paper will at once be coloured blue by the hydrocyanic acid generated in the flask, without bringing the paper in contact with the liquid.

EXTRAORDINARY DOSE OF CHLORAL.—Mr. William Sedgwick, London, narrates in the *Lancet* a remarkable case attended him. A widow, 62 years of age, attempted to commit suicide taking 3 fluid ounces of the syrup of chloral, containing grains in each fluid drachm, that is, she took altogether 3 grains of chloral. She was found in an unconscious condition, and on the borders of death, but by a persevering application of an induced galvanic current from the nape of the neck to the pectoral region, she was in about two days restored to health. She had previously endeavoured to destroy her life by idamum, and shortly after the recovery from the chloral dose succeeded in drowning herself. Mr. Sedgwick mentions this fatal mania because of another case on record, in which a dose of 165 grains had been resisted, the patient's mind being apparently similarly affected, and he suggests that probably that condition of mind may render the body less susceptible to the influence of the poison.

ARSENICAL GLUCOSE.—Professor Clonet, of Rouen, and M. Litter, of Nancy, have made independent series of analyses of glucose, with the result of proving that these almost, if not quite, invariably contain some trace of arsenic, varying from 25 to 1094 per kilogramme. This is derived from the sulphuric acid employed in the manufacture. These observations are of especial interest in France, where no less than ten million lbs. of glucose are consumed annually in various elementary products. Wines are coloured with caramel prepared from it, beers and syrups are generally made with it, and to a rapidly increasing extent its employment is replacing barley in the manufacture of beer. Confectioners use it for their confections, and pharmacists for their syrups. M. Clonet thinks that the arsenic in wine which has been attributed to fuchsine is really due to the glucose used in making the caramel which is added to colour it.

Pharmaceutical Chemistry.

ADULTERATION OF OTTO OF ROSES.—A German chemist had, with a sample of rose otto adulterated with what is believed to be paraffin, and states that he has previously found splinters of glass in it.

ADULTERATION OF CREAM OF TARTAR.—Dr. Squibb, of Brooklyn, at a recent society meeting, gave some interesting statistics as to his experiments on the purity of this drug, in which he had found samples as offered for sale, to vary from 92 per cent. of pure cream of tartar, the adulterations consisting of tartrate of lime and terra alba. He also told how one could go to stores in New York where he would be taken to a room in which a sample table is set with different grades of terra alba. One, you are told, will make a beautiful, bright cream tartar, another a dull one, and so on, from one end of the table to the other, each having a particular use.

FOREIGN PRESCRIPTIONS.—A German contemporary tells us that the following prescription was presented at a Roumanian pharmacy:—

Kali permangan.	..	..	..	..	..	5.0
Mucil. camphorae..	..	..	..	..	..	200
M. D. s. Externe.						

The permanganate was dissolved in water, and shaken with the camphor. The colour, at first red, was soon destroyed, and after a short time the mixture set into a stiff jelly, which could not be got out of the bottle. On another occasion was ordered mixture of—

Kali permanganic	..	..	..	..	..	2
Morphium acetate..	..	..	..	..	..	0.05

When these were rubbed together there was a rapid ignition of the mixture, followed by an explosion and a suffocating smell like chlorine. When pure morphine and the sulphate and chloride were tried in place of the acetate, the effects were similar: they were most violent with the last.

A REACTION OF ELATERINE.—Mr. D. Lindo has observed that the active principle of elaterium gives, with phenic acid and concentrated sulphuric acid, a very beautiful coloured reaction. If some crystals of the elaterine are fixed in a little porcelain capsule with a few drops of dilute phenic acid, the solution is effected without any

coloration. But if some drops of concentrated sulphuric acid are added, there immediately appears a magnificent intense red carmine colour, which afterwards changes to orange, and subsequently to scarlet. The colour is destroyed by the alkalis. None of the alkaloids yet known give this reaction with phenic acid. If dilute phenic acid is not accessible, solid acid may be employed instead, but it is necessary, before the addition of sulphuric acid, to add a few drops of chloroform or alcohol. With the sulphuric acid alone the elaterine does not produce this characteristic reaction. This test may be performed with commercial elaterium direct, but the elaterium must first be powdered.

PELLETIERINE.—Tanret has discovered in pomegranate root bark an alkaloid which he has named "Pelletierine," but which it is proposed to call by the more appropriate name, "Punicin." We take the following account from Hager's "Pharmaceutische Praxis." To prepare it, a thousand parts of the coarsely-powdered bark are made into a paste with milk of lime. This is packed in a displacement apparatus, and percolated with water until 2,500 parts of percolate are obtained. The percolate is repeatedly shaken with chloroform; the chloroform, in turn, is shaken with water acidulated with dilute sulphuric or hydrochloric acid; the acid solution is neutralised with soda, and evaporated to dryness in a vacuum over sulphuric acid. The salivary mass thus obtained is mixed with an excess of potassium or sodium carbonate, and shaken with chloroform, by which the free punicin is dissolved. When the chloroform is evaporated the oily-looking alkaloid remains behind. Tanret has obtained 4 parts of punicin sulphate from 1,000 parts of the root. When pure, it is a colourless liquid with an aromatic odour, and slightly soluble in water, alcohol, ether, and chloroform. When its solution in chloroform is evaporated in the air, it becomes yellowish; dropped on paper, it leaves a grease spot, which quickly disappears when exposed to the air. It is volatile at ordinary temperatures, and when the vapour of hydrochloric acid is brought near it, it gives a white cloud. It has a strong alkaline reaction, neutralises acids, and forms with them crystalline salts. From the solutions of the salts of most metals it precipitates the oxides; with platinum chloride it gives no precipitate, but it does so with the chlorides of palladium and gold. It reacts with most of the alkaloid tests. The tannate is soluble in excess of the acid. The sulphate, hydrochlorate, and nitrate form good crystals, but are strongly hygroscopic. Their solution evaporated in a vacuum leaves neutral colourless salts, but when evaporated in the air they become yellow, and acquire an acid reaction, through the destruction of the base. The salts have a weak odour and an aromatic bitter taste.

Foreign Items.

MR. W. H. Woodcock, formerly an English chemist in Paris, has recently opened a pharmacy in Eighth Street, New York.

CORK LININGS FOR WALLS.—Russia is using large quantities of cork, which is cut into thin plates, and is then used as a lining for outside walls. It has been used with success in the United States.

ACCORDING to *The Druggist and Chemist* there are 490 retail druggists in Philadelphia. The same city has the advantage of the aid of 915 allopathic and 199 homoeopathic doctors, while another 70 practise as eclectic, botanic, electro-therapeutic, and magnetic physicians.

CHINESE MEDICINE FACTORY.—According to *New Remedies* two Chinamen, Loo Lum Sing and Chock Fan, have recently leased a building in Newark, N.J., in which they intend to commence the manufacture, on a large scale, of medicines peculiar to their nationality. It is intended to supply not only the demand in this country, but to export to the Chinese market.

IN PHILADELPHIA (U.S.) there has lately been a strong development of the "cutting" policy among the retail druggists, and camphor has been selected as the "leading article." Competition has run down the price of this commodity to 1s. 2d. per lb., and the trade in it has been enormous. Doctors and others from distant parts of the country hearing of the opportunity have filled their stocks from Philadelphia through resident friends.



For particulars of Advertisements, Subscriptions, &c., please refer to the first page of Literary matter. An Index to the Advertisements contained in this issue will be found in the front portion of the Journal.

OFFICE—Colonial Buildings, 44a Cannon Street, London.

RENDALL'S THEOBROMINE,

OR

CONCENTRATED COCOA,

BEING a first-class article, and nicely got up, commands a good sale by all Chemists who bring it under the notice of their customers.

In 1s., 2s., 3s. 9d., and 7s. 6d. tins, through the Wholesale Houses, or direct from the Proprietor,

J. M. RENDALL,
28 QUEEN STREET, EXETER.

Chief Wholesale Agents—

SANGER & SONS, 150 OXFORD STREET, W.

SEE SEABURY & JOHNSON'S Advertisement of INDIA RUBBER POROUS AND SPREAD PLASTERS on page 89.

SANITAS.

THIS incomparable fluid is colourless, non-poisonous, and agreeable. It is harmless to furniture and linen, and is "THE ENEMY OF DISEASE." SANITAS is "a valuable Antiseptic and Disinfectant."—*Times*. SANITAS is "first favourite among Disinfectants."—*Lancet*.

In bottles (1st Quality only) at 1s., 1s. 6d., and 2s. 6d.; in gallons at 20s. (1st Quality), and 5s. (2nd Quality).

TOILET SANITAS.—As a mouth-wash; for the bath; and for all the purposes of toilet vinegars. In elegant bottles at 2s. 6d.

TOILET SANITAS SOAP embodies the healthful principles of sanitas. In boxes of three tablets at 1s. 6d.

CAUTION.—These articles bear the Trade Mark of the Sanitas Company (Limited), and may be had of Messrs. BARCLAY & SONS, EDWARDS & SONS, LYNCH & CO., MATHER, MILLARD & SONS, MAW, SON & THOMPSON, NEWBERRY & SONS, SANOKER, SUTTON, and of all Wholesale Houses, or of the Company, 57 Moorgate Street, E.C.

Special Quotations for Shipping and Export Orders.

PAMPHLETS AND PARTICULARS FREE ON APPLICATION.

PURE CRUSHED LINSEED.

PETER MUMFORD & SON'S PURE CRUSHED LINSEED,
BEST QUALITY. NO OIL EXTRACTED.

Ground so as to retain the natural colour of the seed without being heated.

22s. per cwt. Special Quotations for Larger Quantities.

REPORTS AND ANALYSES ON APPLICATION, POST FREE.

Newcastle Granary & Steam Mills, Farringdon Road, London.

IMPORTANT TO CHEMISTS, SODA WATER MANUFACTURERS, AND OTHERS.

Removal of Lead from Water.

THE SILICATED CARBON FILTER

Entirely removes Lead from Water, thus meeting the complaints that arise from time to time as to the presence of Lead in Aerated Waters.

For confirmation of this assertion, see the opinions of such authorities as Dr. BAILETT, Professor WANKLYN, and others, at page 74, December, 1876.

REDUCTION IN PRICES.

GENERAL MINERAL WATERS DEPÔT 27 MARGARET STREET, REGENT STREET LONDON.

Cassell's Illustrated Almanac for 1879

(Twenty-fourth Year of Issue) is now in Preparation.

* * * Advertisers desirous of securing space in the body of this Work should communicate at once with the Manager of the Advertisement Department, *La Belle Sauvage Yard, Ludgate Hill, London*, who will forward terms and prospectus on application.

HOMEOPATHIC MEDICINES.

E. GOULD & SON,

Chemists by Appointment to the London Homeopathic Hospital
Manufacturing Homeopathic Chemists,

Are desirous of appointing Agents for the Sale of their Preparations in various parts of the United Kingdom and the Colonies.

For Particulars apply at 59 Moorgate Street, E.C.

ANALYSED TEA ASSOCIATION BUSH LANE, LONDON.

Chemists only are Agents in about 300 towns in England alone.

A Certificate of Analysis accompanies every Pound of Tea.

PARTICULARS OF AGENCY ON APPLICATION TO MANAGER.

The Teas can be obtained through nearly all the Wholesale Druggists.

ELLIMAN'S EMBROCATION.

See page 29.

EDITORIAL

NOTES.

The British Pharmaceutical Conference.

THE fifteenth annual meeting was opened in Dublin on Tuesday last, Mr. G. F. Schacht occupying the presidential chair. A large handsome room in the Hall of the College of Physicians had been kindly lent for the occasion, and, except that it was somewhat too large and too lofty for the Conference in the present extent of its assemblies, the accommodation provided has certainly never been excelled. By the time the President commenced the delivery of his address there were rather over a hundred present. These included an excellent representation of Irish pharmaceutical chemists, but the apothecary element seemed to have almost held aloof. It was rather a disappointment, too, that although Dublin can boast of quite a number of physicians and scientific men, who have well served the cause of chemistry as well as of pharmacy, none of these were present. Professor Markoe, of Boston, U.S., paid his second visit to the Conference, and a larger proportion of English and Scottish representatives had crossed the Channel than might have been expected. Conspicuously absent were the ultra-scientific gentlemen, whose contributions to recent conferences had almost tended to destroy their pharmaceutical characters. The President's address was marked, as it was certain

o, by freshness and gracefulness of composition. It was characteristic, too, in other respects. A "Model Pharmaceutical Laboratory" was Mr. Schaeft's topic last year; this year in his presidential address he has sketched the worker in that laboratory. "Pharmaceutist" was the subject of his address; and its main pose, as we take it, was to suggest the duties which masters to their apprentices, as well as those which apprentices to their masters and to the profession which they have adopted. An address like that deserves to be widely published earnestly read, for it inculcates a healthy view of ouries, and helps the student, the assistant, and the tradesman look beyond the mere drudgery of his daily occupation.iting this, as we necessarily do, in the middle of the meeting, is impossible to give any sketch of the general results whichrmacy may expect to gather from this Conference. Wee below a summary of the subjects on the programme,

next month we shall hope to present the most interesting matters which were brought forward. It must be said, however, that during the first day at least there was a painful lack of vigour about the discussion. This was seen once by a short discussion which occurred on Mr. Berger's paper, in which the author had incidentally referred to the absence of any recognised formula for violet powder. A hint was given that sulphate of lime was probably as good as starch, which brought up Dr. McSweeney on the other side, and a short discussion ensued. The report showed very satisfactory financial results. There was also a paragraph in it which sufficiently explained the absence of our scientific friends. It stated that the list of suggested subjects had been revised with a view of naming only those possessing special pharmaceutical interest, though the committee recognised the aid which had been accorded in the past by scientific friends, and hoped it would be continued, they also hoped that contributions on pharmaceutical matters would increase. The Irish Committee are influential, and lavish in their kindness; besides providing cheques each day, they have arranged, for the 15th, an excursion by special train and carriages into the beautiful scenery of Wicklow, and on the return in the evening they will offer their guests a dinner in the Exchange Palace. The meeting of the Conference next year will probably be held at Sheffield.

The following was the official programme:—

TUESDAY, August 13.—“Report on the Aconite Alkaloids,” C. R. Alder-Wright, D.Sc., London, J. Williams, F.C.S., and B. Groves, F.C.S.; “Report on Brucia and the Constituents Strychnos Bark,” by W. A. Shenstone, F.I.C.; “Note on the Isometric Estimation of some Official Iron Compounds,” by N. Draper, F.C.S.; “Notes on Opium,” by Mr. B. S. Proctor; “Soluble Extracts of Ginger,” by J. G. Thresh, F.C.S.; “Nitrite Amyl,” by Mr. D. B. Dott; “Note on Beberia,” by Mr. B. Dott; “Notes on the Titration of Hydrocyanic Acid and imides, and its Relation to Alkalimetry,” by L. Siebold, F.C.S.; “The Presence or Absence of Sugar as a Normal Constituent in Urine,” by L. Siebold, F.I.C., F.C.S. (withdrawn); “Microscope in Materia Medica,” by T. Greenish, F.C.S.; “Isidole Copiba,” by T. B. Groves, F.C.S.; “Baycuru,” by Symes, Ph.D.; “Authoritative Formulae for Unofficial Preparations,” by F. Baden Benger, F.S.C.; “Solution of Iodoform Iodoform Lint,” by G. A. Keyworth, F.C.S.

WEDNESDAY, August 14.—"Note on an Improved Preparation of Ergot," by A. W. Postans, F.C.S.; "A Comparison of the Strength of some of the Cinchona Preparations," by C. Ekin, F.S.; "The Assay of Cinehona," by Mr. J. B. Smith; "The Extraction of Emetia from the Deposit in *Vinum Ipecacuanhae*," by Brownen, F.C.S.; "Adulteration of Drugs," by C. R. C. Borne, F.L.D., &c.; "Bismuth Residues," by Dr. Letts, F.C.; "Notes on the Methods of Distinguishing Carbolic Acid, Cresylvic Acid, and Creasote," by A. H. Allen, F.I.C., F.S.; "On a Reaction of Orange Flower Water," by Reynolds, F.C.S., and Mr. C. H. Bothamley; "Notes on various samples of Dialysed Iron," by R. Reynolds, F.C.S., and C. Bothamley; "Preliminary Examination of Pituri or Chere," by A. W. Gerrard, F.C.S.; "Note on the Preparation of Phosphorus Pills," by A. W. Gerrard, F.C.S.; "A Chemical Compound of Hydriodate of Quinia and Iodide of Bismuth," by Mr. C. W. Fletcher; "Laboratory Notes," by Mr. H. Barton; "Note on Reichenert's Improved Thermo-Regulator," by C. H. Mason, Ph.D.; "Chloroform," by A. H. Mason, F.C.S.

CHEMISTS AND THE MEDICAL BILL.

At the July meeting of the Pharmaceutical Council Mr. Williams manifested signs of nervousness lest a certain deputation, neither instructed nor sanctioned by the Council, should have compromised chemists generally by what they may have said to the Duke of Richmond in reference to the Government Medical Bill. A few days later Messrs. Williams, Hills, and Sandford, themselves, had an interview with the Duke and, we are told, "advanced all the arguments which could be brought forward in favour of" the objects desired by chemists. Having in view the public utterances of these gentlemen, and knowing well that three pharmacists more sympathetic to the medical profession could hardly have been selected, it may be permitted that we should suggest the possibility that other chemists may fairly doubt whether their interests were in perfectly safe keeping in such misrepresentative hands. The arguments at any rate do not seem to have greatly affected "His Grace," whose flat refusal to help the chemists at this time was hardly, we presume, an overwhelming disappointment to his visitors.

* *

"Not without regret," though apparently from the exquisite delicacy of his moral sentiments, the editor of the *Pharmaceutical Journal* "feels constrained" to become the apologist of the persecuting doctors, and the candid critic of those chemists and druggists who, without waiting for Bloomsbury sanction, are striving to establish their reasonable and long-enjoyed rights. We regret exceedingly that in such an important contest as this any section of the trade should even partially betray us. If we are seeking improper objects, or if we are trying to compass our ends by immoral means, it is quite right that we should be checked; but we utterly fail to perceive the impropriety of the object or the immorality of the means. Until quite recently it was recognised by everybody, by nobody more sincerely than by the apothecaries themselves, that the law admitted the right of anyone to practise medicine so long as he or she did not assume any misleading title. If the quite modern discovery of the powers of the Apothecaries Act in crushing competition be ultimately established, it will only be proved that the Act is opposed in spirit to all other parts of British medical legislation. The Trade Association has quoted some earlier declarations, made by officials of the Apothecaries' Society, to prove this fact, and this quotation is declared by the *Pharmaceutical Journal* to be in flagrant inconsistency with facts. In his eagerness to limit the rights of chemists and druggists, the same writer finds "reasonable" a design which he attributes to the Government, but of which the Government can hardly be fairly accused. He says (we quote from a leading article in the *Pharmaceutical Journal* of July 13): "Unquestionably it appears now to be the intention of the Government to prohibit all persons who are not duly registered medical practitioners from carrying on the practice of medicine or surgery for gain." Now it so happens that the Duke of Richmond's Bill expressly recognises the existence and the right of existence of unregistered medical practitioners. At any rate, we fail to be able to read the 21st clause of that Bill in any other sense. It declares that "if a person who is not for the time being registered in the medical register where he practises for gain, or professes to practise, or publishes his name as practising medicine or surgery, or a branch of medicine or surgery, or is engaged for gain or professes to be engaged, or publishes his name as being engaged in the cure or treatment of diseases or injuries, takes or uses the designation of physician, surgeon, apothecary, or doctor, or of any medical diploma, or any designation or description used to distinguish registered practitioners of medicine or surgery, or of a branch of medicine

or surgery, or any medical or surgical designation or description, or any designation or description implying that he is qualified to practise medicine or surgery, or a branch of medicine or surgery," such person shall be liable to a fine not exceeding 20*l.*

The English of that section would probably be improved in committee, but the intention of the author can hardly be doubted. How the Duke of Richmond can harmonise this intention with his determination to incorporate the persecuting clause of the Apothecaries Act in his Bill is a matter for him to explain.

**

During the month the *Pharmaceutical Journal* has been struggling with evidently earnest effort to find something like a firm footing on the slippery policy which it has adopted of holding with the hare and running with the hounds. Its "exuberance of verbosity" has been alarming to some of its readers, amusing to others, and instructive to none. We shall not attempt to follow the arguments—or what pass as such—by which chemists are urged to do nothing at all but trust blindly to the superior wisdom of the Bloomsbury Councillors. The articles pretty fairly answer each other. Amid many insinuations that chemists who prescribe are going beyond the limits permitted by law, we do not find any direct assertion to that effect. The writer thinks (on July 13) that it would be quite reasonable that they should be so restricted. On July 27, however, he holds that "there neither is nor can be a law to prevent any persons from recommending to others medical remedies: least of all should the chemist and druggist be subject to such restriction." And then a week later he attempts to extract and administer consolation from the correspondence which passed at the beginning of this year between Mr. Flux and the solicitor of the Apothecaries. With particularly child-like faith, he finds in Mr. Upton's letters "a distinct disavowal of having sanctioned a prosecution of pure and simple counter practice," and "a pledge as to the future" to the same effect. Now Mr. Upton's letters were not officially authorised by the Court of the Apothecaries' Society; he expressly intimates the belief of the Court that their Act gives them power to stop even what they consider pure and simple counter practice, and at the time of writing his Society was fighting the Trade Association on the issue whether a chemist may give a gargle for a sore throat. That fact shows where they would draw the line as to pure and simple counter practice.

What the Pharmaceutical Council and the Pharmaceutical editor may consider "desirable" or "undesirable" may be of some importance, but it has none in this connection. In spite of the editor's oracular declaration, it happens that two judges consider that there both can be and is a law to prevent chemists from recommending medical remedies to others. Those who think with us, and who are represented by the Trade Association, are exerting themselves to have that law clearly defined; and if it should prove unfavourable to us, they will next year strive might and main to get it altered in Parliament in accordance with the principle on which all other medical legislation rests. If they fail, it will be because a small section of the trade has managed to make it appear that we are a disunited body. But as the public benefit will alone be a vital consideration, this small criticism from within is hardly likely to have much weight.

**

When Messrs. Williams, Hills, and Sandford saw the Duke of Richmond in reference to the repeal of the penal clause in the Apothecaries Act, the Duke, we are told, expressed his opinion that the public had a right to apply to whom they liked for advice, and he asked if the deputation could instance any cases of oppressive persecution by the Society of Apothecaries. "The committee were unable to cite any such cases," and yet at this moment there is an action pending in which the

Society of Apothecaries are nominally the plaintiffs, and which distinctly raises the question whether a chemist may give his advice in the case of a sore throat when he is applied to by a customer!

THE ANGLO-TURKISH CONVENTION AND THE DRUG TRADE.

If Great Britain should secure the reform of the administration of Asiatic Turkey, the drug trade will surely be affected for the better by the change. The present state of the country makes it almost impossible for the European to conduct any profitable business there. The competition of the natives is considerable. There are no banks to facilitate exchange. No new roads are made: the existing ones are hardly ever repaired. The pavements in the towns are said to be the same that they were a century ago. The use of forced labour on the roads was forbidden in 1875, and since then there has been no money to expend on them. Bridges are never built. Sometimes they are commenced, and two or three piers are raised, but the first flood washes them away, and no one thinks of recommencing. The old bridges fall into decay and are not repaired. The only railways run for a short distance from Smyrna; they are unknown in other parts of the country. Jetties, piers, harbours, quays, are urgently needed. Firmans promising indefinite improvements are sometimes read, but never carried into effect. Almost the sole addition to commercial conveniences has been at Smyrna, where Messrs. Dussaud & Co., French subjects, have recently completed a quay and a port, which will accommodate 300 vessels. Rivers are allowed to remain unnavigable, and even to fill harbours with detritus. Enormous taxes are levied on all goods that enter or leave the ports, even returned empty sacks having to pay a heavy duty. The charge for portage is four times greater than it used to be, for the porters have to pay three-fourths of their earnings to the custom house. No accommodation is provided for goods landed but not yet passed by the custom house officials, so that heavy damages are caused by exposure to the weather. The officials must be bribed, or they will not do their duty.

The justice administered by the courts is not worthy of the name. In most places the evidence of a Christian is not received in cases which concern Mussulmans, and if a European merchant extend his operations beyond the walls of a few large towns, he will probably lose his money without hope of redress.

It is evident that the alteration of all this would immensely facilitate trade of all kinds. The people are said to be willing workers. A large extent of arable land is still uncultivated. It is noticed that good crops largely increase the imports for the year. Nearly every report declares that European capital and European energy would produce a marvellous change in four or five years, and it is often asserted that the capital would be doubled in that time.

Among the drugs which will be more immediately affected by any change in the government of Asiatic Turkey are the following. Scammony is produced only in that country. The gum has been so persistently adulterated in former years that its export and production have very largely decreased. The roots are taking its place in commerce. The Turkish Government in many places forbade its exportation at first, but our Consul at Smyrna reported in 1876 that the prohibition had been removed, that the crop was rapidly diminishing, and that if the destruction of the plant was not speedily checked, the article would disappear from commerce. The price at Smyrna in that year was 50*s.* a pound; the freight to England cost 4*l.* to 6*l.* per ton measurement.

That the roots would ever disappear from commerce is not at all likely, as the plant producing it is found in all parts of Asia Minor, Syria, Greece, and the Greek islands, and is probably a

tive of Cyprus. Nothing is known as to the age at which the plant is most active as a medicine, nor has it been cultivated on commercial scale. The reputation of gum sennomy has come so bad, and the age is tending more and more to the use of medicines of definite chemical composition, that unless it were more profitable to export the roots, it would be better to manufacture the resin on the spot, and export it in that form. A process recently devised by Perret seems worthy of a trial on a large scale. The roots are boiled with alcohol, the thickinous liquid is exactly neutralised with a few drops of sulphuric acid, which precipitates all the colouring matter as a lake imbued with iron and alumina; and the alcohol may then be tillied off. The product thus obtained is very white, dry, and uniform in composition, and it is hardly to be doubted that it would command a ready sale. Perhaps the best account of the present method of manufacture will be found in *Pharmacographia*, page 394, &c. Alcohol could soon be produced in the country, a demand sprang up for it, for raisins are now exported to France for distilling purposes.

The trade in galls, once very important, has been much reduced by the introduction of valonea and other cheap tanning and dyeing agents into commerce. Our consuls report that the collection of galls is only profitable when the valonea crop is tall; still they are abundant in some parts of the interior, and improved means of communication would probably bring large quantities to the coast at remunerative prices.

One feature of the trade in opium is in much need of alteration. The peasant producers are almost always in debt to the merchants who buy the opium of them. The price of the drug is fixed yearly at a meeting of the merchants and producers, held after the crop has been collected. There is evidently an opening here for Europeans, but whether an improvement of these relations would increase the supply or in any way affect the price of the drug is very doubtful.

Liquid storax, though little used in England, is exported in considerable quantities to China, India, and other Asiatic countries. It is collected in the south-west of Asia Minor by a wandering tribe of Turcomans, the Yuruks. The method of extraction is very rude, and is described in *Pharmacographia*. The bark, formerly known as *Cortex Thymiamatis*, and the resin would probably both be useful in perfumery could they be imported at a sufficiently low price.

Tragacanth is collected by hand, the finer sorts being produced by incision, while "sorts" and "seconds" exude naturally. The collection is in the hands of the peasants, and the rough article is sorted by the Spanish Jews. No attempt has been made to cultivate it. One species rather less common than others is suspected of producing much finer gum than any that appears in the market. The plants grow on mountains, which seem to be otherwise unproductive.

Saffron is grown in Asia Minor, but here as elsewhere its use and production are decreasing. Besides these the following drugs are exported in larger or smaller quantities: liquorice, dates, almonds, castor oil seeds, beeswax, colocynth, aniseed, saffron, otto of roses, sponges, yellow berries, madder, and pimento. The introduction of artificial alizarine has made adder an unprofitable crop. Safflower, galbanum, squills, and many other drugs could be grown here.

Of Cyprus it is difficult to say much. Turpentine could probably be obtained in quantity from the pinewoods which still exist. Chiar turpentine might be obtained from the terebinth (*Pistacia terebintha*) and mastic from the lentise (*P. lentsea*). It was proposed in 1860 to utilise the berries and leaves of the latter plant for dyeing black and other colours; but although provisional protection was granted to the idea, we believe it was never proceeded with.

In conclusion, the improvement of administration and of means of communication would undoubtedly affect for the better

our supplies of drugs from Asiatic Turkey. But the improvement will be slow and gradual, though it may be discounted by speculators. There is plenty of room for Englishmen and English drug dealers in the country, but those who go too soon will probably fare badly.

OFFICIAL REPORTS.

The editor of the *Pharmaceutical Journal*, in controversy with Mr. Urwick, vigorously denies that his reports of the Council meetings are subject to any control. Mr. Sandford and Mr. Williams, on the contrary, expressly object to the admission of a reporter over whom they would not be able to exercise any control. The reporter himself is dragged into the discussion, and he is clearly of opinion that nothing could be more perfect and artistic than the style in which he does his work—an opinion which we readily endorse. But when he explains that he only omits such remarks as the speaker may not wish to have reported, he thereby makes his letter of no effect for the purpose for which it was written. That these omitted remarks may be sometimes important for the context is evidenced by the special case referred to by the reporter. Insulting references to this journal were made by Mr. Betty, and duly reported. The reference to the article on which he based his criticism was suppressed in the report at his wish. That article, as it now appears, was published three months before Mr. Betty himself moved for the admission of our reporter—a circumstance suspected at the time by Mr. Hampson, but denied by Mr. Betty. The reports of the speeches are, also, still, it appears, sent round to London members for revision before publication, and though verbal alterations only are admitted, it is unnecessary to state how easily even these can be made to misrepresent the tone of a discussion. As illustrating how easily an accurate report may be inaccurate, we place side by side our own report of a little episode not very creditable to the Council, which occurred at the last annual meeting of the society, and the report of the same from the *Pharmaceutical Journal*:

From THE CHEMIST AND DRUGGIST.

Mr. Urwick wished to say a few words respecting the balance-sheet. . . . Passing to other items the speaker remarked that the item of 483*l.* for "rent, taxes, and insurance" seemed much larger than it used to be.

The President explained that a large sum had been paid for insurance. By paying for seven years in advance they had an allowance of one year made to them.

Mr. Urwick asked for the exact amount that had been paid for insurance.

The President, after inquiry, found that nothing had been paid this year for insurance.

Mr. Urwick remarked that the item "insurance" stood in the balance-sheet, and he thought it should not have been there if it had not occurred.

It ultimately transpired that the sum given included 100*l.* for rent of Mr. Bremeridge's private residence.

Mr. Andrews said he would like to mention that as an auditor he had urged that the 100*l.* paid for Mr. Bremeridge's house should be included under the head of "salary." The auditors, however, had no power in this matter.

This system of reporting may be satisfactory to that section of the Council which the President is pleased to call "the majority," but it is a system which must either break down or become corrupt sooner or later.

* *

The scene at the last Pharmaceutical Council seems to indicate that "the majority" are beginning to feel their power slipping from them. The narrowness of the victory on the

reporting question has brought this fact prominently forward, and the introduction of another "irreconcileable" into the Council, as well as the vision of many such outside, is not calculated to soothe the angry feeling which seems to have been awakened. Mr. Fairlie made a statement which was arithmetically correct when he stated that in the division on the admission of our reporter the president exercised a double voting power. Unfortunately, in the heat of the moment, he intimated a doubt whether the president had a right to this double vote. In that suggestion he was wrong, as might have been explained in two minutes, and it was the chairman's duty to have made this clear without any waste of violence. As it was, the display of pompous wrath over such a trifling error which Messrs. Betty, Bottle, and Schacht launched at the "youngest member" approached very near the ridiculous, and suggests an irritated condition of the mental cuticle.

THE DENTISTS ACT.

As will be seen from another column, the Dentists Act has now become law. The result will be that the title of dentist, or any similar appellation, will, after August 1, 1879, be a protected one. There will be nothing to prevent anyone else performing dental operations, though such an one would not be empowered to recover any charges for the same in a court of law. The Act provides that any person who is now actually practising dentistry or dental surgery, either separately or in conjunction with medicine, surgery, or pharmacy, shall be entitled to registration. The process required is very simple. The applicant must send his name and address, with a written declaration to the effect that he was, when the Act was passed, *bona fide* engaged in the practice of dentistry, to the Registrar, and he must get someone to witness his signature. If this application be made before January 1 next, the fee will be 2*l.*; after that date it will be 5*l.* The Registrar may, if he please, require that the declaration be affirmed in a legal manner, and a false representation will subject the author of it to severe penalties.

We should add that the register is not yet opened; by next month we shall no doubt be in a position to give more exact particulars.

PUBLISHER'S NOTICE.

NEXT month we shall publish our usual educational number. Full information respecting pharmaceutical, medical, and technical schools will be given. Secretaries are requested to favour us with prospectuses early. Publishers, teachers, schools, scientific apparatus makers, and others should avail themselves of this opportunity.

We also wish to mention that we are now preparing our Diary for 1879, and shall be glad to receive orders for advertisements as early as possible, as a large special edition will have to be prepared for Australia. A copy will be supplied to every member of the Pharmaceutical Society of Victoria as well as to all the rest of our subscribers.

PATENT MEDICINES IN RUSSIA.

The Russian Government, it appears, is about surfeited with patent medicines. At any rate a somewhat distinct hint has been conveyed to French pharmacists to the effect that no more of their products are required. The Russian ambassador at Paris has been charged by his Government to inform the French Minister of Commerce that for some time French manufacturers of pharmaceutical products have been in the habit of sending samples of their specialties to the Director of the Russian Medical Department at St. Petersburg "without having been invited." It is announced that from henceforth no such samples

will be withdrawn from the customs for analysis; in other words they will be confiscated. No patent medicines are allowed to be sold in Russia until they have been approved by the Medical Department of the Government. We named those of English origin which are admitted in an article on Russian pharmacy in June, 1876.

THE CHEWSTICK.

In the *Journal of Applied Science* for June we find a reference to a Jamaica plant, known as Chewstick, specimens of which are shown at the Paris Exhibition, in the form of herb, powder, and tincture.

The Chewstick, though not indigenous to Jamaica, is perhaps better known there than in other islands, where varieties of it are known. It is named by botanists *Gouania Domingensis*, and is a very beautiful and thick bushy vine, with a profusion of foliage climbing upon the trees growing in its neighbourhood, and with a stem varying in thickness from that of a walking-stick to that of a pen-holder. The stem is very fibrous, and when these fibres are detached at the end of a section of the stem by chewing, becomes a rude but most perfect tooth brush, giving out in the mouth, when rubbed over the teeth, a saponaceous froth of a pleasant aromatic bitter taste, which remains in the mouth for some time, and which not only serves the purposes of a tonic better when used in this way, but also whitens the teeth and hardens the gums; on this account it is extremely popular in Jamaica as a dentifrice amongst all classes, and has attracted a good deal of favour in foreign countries. It also possesses another peculiar property. If a quantity of the bruised vine be steeped in water, wort, beer, or any kind of watery infusion, there is communicated to it a warm, bitter, aromatic taste, and if the fluid so treated be poured out from one glass into another, it will be found to have acquired all the appearances of beer (minus its alcoholic flavour) in a high state of fermentation; on this account the Chewstick ought to be very useful to brewers and others of this class, since stale or immature beer would be much improved by its use, giving to such fluids a warm aromatic bitter taste, more agreeable than that given by hops, though certainly it does not possess the narcotic principle which makes hops so indispensable to the brewer and others.

If our pampered civilisation should object to the use of the rough kind of tooth-brush which Nature has herself provided, the virtues of the Chewstick can be seen either in the form of powder or tincture; either, applied with a toothbrush, will fill the mouth with a thick saponaceous froth which, at the same time, cleanses the teeth and leaves a sense of warmth and an agreeable flavour which lasts for some hours.

AUSTRALIAN PHARMACY.

We have received from Melbourne the first number of the "Australasian Supplement to THE CHEMIST AND DRUGGIST," published under direction of the Pharmaceutical Society of Victoria. THE CHEMIST AND DRUGGIST, with this Supplement, is now supplied free to all members of the Victoria Pharmaceutical Society, and is sold to the trade throughout the Australasian colonies. The Supplement reports the proceedings of the Pharmaceutical Society of Victoria, and also gives a series of Editorial notes, reports, correspondence, and other matter, all of pharmaceutical interest.

The Pharmaceutical Society of Victoria has existed since 1857. Recently a Pharmacy Act has come into operation, providing in much the same way as the English Act does for the sufficient qualification of all future chemists and druggists, by examination; a four years' apprenticeship and attendance on one course of lectures is also required. The minor examination

ploma of Great Britain is accepted by the Pharmacy Board a sufficient substitute. According to the report just to hand I find that the Pharmaceutical Society of Victoria are now pressing on the consideration of the authorities of the Melbourne University the desirability of establishing a school of pharmacy connection with the medical faculty of that institution. The consideration of the proposal was under the favourable consideration of the Vice-Chancellor of the University and the Dean of the Faculty of Medicine.

At a meeting of chemists and druggists held in Melbourne on April 26 the following resolution was carried:—“That the practice of the wholesale druggists supplying drugs, chemicals, patent medicines, &c., in small quantities to retail customers and consumers is injurious to, and interferes with, the trade of the retail chemist and druggist; and that a committee be appointed to confer with the wholesale trade, and to make such arrangements as may be decided upon and shall lead to its discontinuance.”

KILLED AND WOUNDED.

The first half of the current year has been unusually disastrous in respect of commercial failures. This, of course, is what might have been expected, as the long-continued strain to which most departments of business have been subjected must tell with an increasing force in proportion to the length of its continuance. We are indebted to the statistics of failures compiled by Mr. Richard Seyd for the analysis which we are able to give below. There has been a total of 7,516 failures in the United Kingdom during the six months ending on June 30 last. The total number throughout the whole of 1877 was 1,022. The financial, wholesale, and manufacturing branches contributed 1,327 to the first quotation, and 2,172 to the second. In 1877 there were 8,850 failures among retail traders, professional men, builders, publicans, &c. In the first half-year of 1878 there were no less than 6,189 among these same classes. When we remember how the proportion of speculative business has diminished during the past three years, we shall be able to appreciate with the more accuracy the lessons which these figures teach.

It is rather curious to find that “wholesale chemists and druggists” figure to almost if not quite the worst disadvantage in Mr. Seyd’s analysis. Of these there have been 26 failures in the first half of this year, while there were but 20 throughout the whole of 1877. “Tea, coffee, and groceries” (wholesale) are on just the same level, the figures in this trade being 22, against 17 for the whole of 1877. In the retail trades the results are shown as follows:—

	First half	
	1877	1878
Aerated waters, &c.	8	11
Chemists and druggists	76	36
Oilmen	27	17
Surgeons, physicians, and dentists ..	62	38

here are a few curious results of these statistics. For instance, there were, it seems, 175 failures among “carpenters and joiners” in the half year, against 147 in the year. Actors, artists, &c., 17, against 16; journalists, 3, against 2; and newspaper proprietors, 5, against 3; music sellers and publishers are 15, against 15; and brewers, publicans, coffee and eating house keepers, milliners, jewellers, photographers, and picture-frame makers are all beyond the normal proportions. But why billers, corn dealers, bakers, pawnbrokers, and carriers should much exceed it as they do is not quite so easily explainable. For why perfumers, schoolmasters, and toy and fancy dealers should show to advantage in this year’s list. It is to be hoped that the worst is now over, and that economy and care during the critical times have been so general as to reduce the evil effects of the recent bad times to a minimum.

FRENCH QUININE.

THE “Chambre Syndicale des Produits Chimiques” of Paris has addressed a note, on the subject of quinine, to a Commission which has been appointed by Government to examine the Commercial Treaty between France and Italy. It appears that at present an *ad valorem* duty of 5 per cent. is charged on Italian quinine. It has been proposed to substitute for this a fixed charge of 4f. per kilogramme. The quinine makers of France point out that this would not, on the average price, represent more than about 1 per cent., and they urge that a rate of at least 15f. per kilogramme should be levied on the salts of quinine. The following occurs in the note:—The discovery of sulphate of quinine was made in France; the production now reaches more than 20,000 kilogrammes; this production will diminish rapidly unless foreign makers are required to pay a duty equivalent to the Customs charges which the home makers are called upon to pay for their raw materials. They have themselves to pay 5f. on 100 kilogrammes of cinchona bark, and, they say, 100 kilogrammes of bark have to be employed to produce 1 kilogramme of sulphate of quinine. Besides this alcohol, ether, and chloroform are also used, all of these paying duty.

The British Pharmaceutical Conference.

THE PRESIDENT’S ADDRESS.

ON Tuesday morning, after the formal business of the Conference had been despatched, the President, Mr. Geo F. Schacht, F.C.S., rose and said:—

The “Past” of Pharmacy was set before us by our President of last year with so much success that I felt strongly impelled to attempt this year a grasp at its “Future.”

My presumption met with its natural reward. Not for the first time in the history of human folly, the effort to penetrate the impenetrable failed. A kind of hope, however, gradually arose that if the effort were directed to a search for the spirit that guides the work of the present and to signs of connection, if any exist, with that of the past, suggestions might arise worthy of acceptance as shadows of things to come. At any rate, some beneficial hints might be gathered from a good straight look into things as they are. In a somewhat inconsequent and illogical way, but in the order in which my own mind was swayed, I place before you the grounds upon which this idea was based.

The future, then, is silent and refuses to answer; can we run for light elsewhere? What says the wisdom of the past? “That which has been will be.” What says the wisdom of the present? “To-morrow is the offspring of to-day.” Can these words of wisdom help us?

A man becomes what the prevailing habit of his mind impels him to be. Societies become what the prevailing habit of the strongest minds among them impel them to be. Let us call this habit of mind, *Toue*. Shall we define “toue” to be the name for an unwritten code, self-imposed and acting through the sentiments of honour and shame? So far, well; but what is the impulse that at once determines submission to this code, and declares the line at which honour yields and shame prevails? Sense of duty. Duty! The word has but four letters, but with what infinite variety of significance it is regarded!

For the definition of the scope of a man’s duty lies absolutely with himself. To one the petty eoucerus of his own being suffice to furnish the limit, and he is content, in a dull way, to work that he may eat. To another, the entire stretch of the visible horizon fails to include all that conscience declares to have a claim upon his life, and even when fainting strength can do no more he weeps himself out “an unprofitable servant.” The average man takes his place somewhere between these two extremes: not quite so dull, but he acknowledges vaguely that others have rights as well as himself; not quite so pure, but he has to admit that “ego” still stands to him as of prime importance.

But arranged in whatsoever number of groups we will, the

individual claims the right to rend his own case, to estimate the bearings of all its complex surroundings, and to declare the resulting sum of his obligations; and who shall presume to gainsay that right?

Are we not then, at the very outset, confronted by a great dilemma?

How mistaken may every conclusion as to the inner life of a community be which is in any way founded upon a supposed general deference to duty, the word having a different meaning for every individual! And, on the other hand, how hopeless must be the effort to urge upon one's neighbours any other idea of that obligation than the one by which they are already possessed!

Possibly this may be so, but is it not more distinctly true that no man can claim to stand alone in this world. Is not his case of necessity part and parcel of other cases; do not his conditions and surroundings envelope other lives, and his decisions and conduct affect other interests as well as his own? Most surely is this true, and of no portion of his life is it more plainly true than that which is termed his "business avocation," in which, perhaps, many others are labouring with equal anxiety, and whose interests therein are equally grave. Indeed, a man's business avocation may be fairly regarded as the school of his adult life, in which qualities and aspirations for good or evil become developed and confirmed. If the tone of that school be low, the man and his avocations alike become degraded; if it be high, both are in some measure led upward toward honour.

Pharmacy is the school of our adult lives. If the tone of pharmacy be high, both we and pharmacy will be led upward.

Our future, then, depends upon our present. What is our present?

Let us take up a parable, and call it "The Business Life of a Pharmacist." Let the incidents be gathered, neither from the life of any particular individual nor from our own imaginings, but from the facts that lie around us; and let us arrange them in the form of a personal narrative—"The Business Life of a Pharmacist."

I left school when between fifteen and sixteen years of age. It was a good average private school. We were there taught English, Latin and Greek, French, mathematics, and the rudiments of physical science. We were trained kindly, and with an evident desire to make us good as well as capable lads. It was arranged that I should become a pharmaceutical chemist, and that I should be apprenticed to a gentleman in business in a certain provincial town of some size and importance.

My selected master (who I shall in future call my mentor), having considered all he could gather about me from my friends and from my late school, and being fairly satisfied, required me to pass the Preliminary examination of the Pharmaceutical Society. I remember my guardian speaking of this requirement as a "new-fangled bit of nonsense," and so afterwards did some of the lads who went in with me for the examination; but my mentor was quite clear upon the point, urging "that if the young gentleman's mental powers were unequal to the moderate requirements of that test it would be wiser to refer him back for a few more terms to his schoolmaster." I came through the trial with fair credit, though, to my surprise, about 50 per cent. of my companions on that occasion were rejected.

One of the first systematic tasks assigned to me was to spend two hours every morning copying from a "prescription book," carrying out in full, by the aid of dictionary and grammar, all the abbreviations, and translating them into English. I was also required to refer to books on *materia medica* and others, and to read about every article named in the prescriptions. Once a fortnight a short examination served to keep my attention alive to the work. But I was chiefly occupied with what I soon began to call, with some pouting, the drudgery of the shop—wrapping and folding and putting up articles of stock for sale—until, indeed, I ventured a bit of a grimble.

My mentor listened, with a quiet smile, and assured me that when I could wrap three consecutive ounces of light carbonate of magnesia into three similarly-shaped and equally neat parcels I should be excused wrapping for a whole month.

I am not sure that I ever achieved the task, but I soon ceased to regard such work with any distaste, for I saw that it had to be done, and the growing dexterity of my fingers rendered it day by day less irksome.

My work also soon came to be varied by occasional employment in the laboratory. We there carried on a good deal of drying, grinding, powdering, sifting, infusing, macerating, press-

ing, straining, extracting, distilling, &c., &c., for my mentor said, in answer to someone's expression of surprise, that "although doubtless there were many amongst those of whom he could buy the manufactured article who were quite as clever and quite as honest as himself, still his customers confided in him and not in some individual utterly unknown to them, and he thought it right to be able to vouch by personal knowledge for the integrity of, as nearly as possible, everything he gave them." So there was a good deal of work done (on a small scale) in my mentor's laboratory, and I became familiarised with processes of interest both scientific and commercial.

In the second year of my apprenticeship—and when my reading and experience had opened my mind in some degree to the qualities and properties of the materials I had to deal with—I was required to attend a course of lectures on systematic chemistry, and in the following year a course upon botany and *materia medica*; and my mentor was careful to see the contents of my note-book and to have me copy them out in full with the aid of text-books, requiring me in the one case to make drawings of the apparatus used in the experiments and in the other case marginal illustrations of the parts of plants described and graphic descriptions of the technical terms employed by the lecturer, "for," said he, "this will assure both yourself and me, that you have understood what you have seen and heard, and it will assist wonderfully in stamping these essential matters into your memory."

That course of lectures on chemistry was for me an important one, for it was during its delivery that I first fell in love. The "smite" occurred in this wise. With more or less effort I had followed the lecturer through perhaps the first half of his course, regarding every fact and phenomenon he put before us as so many bits of information to be painfully remembered, till one eventful morning when it became his duty to expound the chemistry of the voltaic pile. As, in the course of that explanation, he proceeded to dilate upon that strange wonder, the parallelism of the phenomena that occur in the generating and in the experimental cells, a screen seemed suddenly to fall from around my senses, and I felt for the first time in my life that there was a meaning in the relations of things, the mere cognizance of which was a delight.

Utterly indefinable as that impression then was, it served to give a perfectly new impulse to all that portion of my work. It was the first sweet taste of a spring of wholesome enjoyment that has never since failed, and for whose refreshment I hope I shall never cease to feel grateful. I had fallen in love with the fair Spirit of Science and had reaped the usual result of such a plunge. I had got one step nearer to Heaven.

I was very anxious to dispense long before I was allowed to do so, but my mentor said very gravely, "Remember, if you please, trusting you to dispense is trusting you on the one hand with my reputation, and possibly with my very commercial existence, and on the other hand with the safety and existence of the public. It becomes my clear duty, therefore, to withhold that trust until I have full assurance that you deserve it; a dispense must not only be capable of absolute correctness himself, but he must also be capable of detecting any error of ignorance or accident on the part of the prescriber; special qualifications of knowledge, training, and even of character, are required in a good dispense. I admit these qualifications are growing up within you, but they are scarcely yet sufficiently pronounced to justify the trust."

The proper time came in due course, but I have ever felt the responsibility of that portion of my work, and have gratefully adopted any aids to safety that have appeared to promise well.

About this time I began to acknowledge the wisdom of one condition of my apprenticeship that had at first appeared a little arbitrary. When its terms were being first discussed I felt unwilling to be bound for so long a period as four years. But my future mentor urged the point with some earnestness, and of course it was yielded. "There is no school for the pharmacist," he said, "equal to that of the pharmacist's shop. Three years is all too short a time in which to master its details; four years is more than 25 per cent. better. The healthiest plants are those which are not unduly forced." This, the first argument I ever heard him use, was a fair illustration of one of the special qualities of his character. He thought everything that had to be done worthy of the amplest pains. Nothing was allowed to be slurred. Every article purchased was the best that he could select, and many a parcel of goods, once perfect, have I seen him throw into the dust-bin, because it had begun to show signs of change. All suggested new pro-

sses were tried, and if found to be improvements were adopted. In every case of doubtful prescribing, trouble to any extent was known to find out the prescriber's intention. To this end I had frequently to spend hours in finding out the doctor and getting him to review his prescription; occasionally these efforts were wrongly interpreted, and we even received the reverse of thanks for our pains, but the comment and consolation of my chief were invariably the same—"Never mind: it was the right thing to do."

As time went on I had full opportunity of seeing that, though not quite always appreciated as I thought he deserved, my mentor was much trusted and (at times) consulted by his customers and neighbours, and I had frequently to assist him in matters that appeared to lie somewhat outside the usual run of business. He appeared to think these fit opportunities for arranging such bits of experience as he thought might be of use to me. I made memoranda of these as they occurred and as they were told, and find they present a strange mixture of subjects.

I have notes of—

1. *Cases of Analysis*, including those of waters, manures, minerals, chemicals, articles of food, samples of healthy and of diseased secretion, &c.

2. *Cases of Suspected Poisoning*, happily not one case of real poisoning.

3. *Cases of Emergencies* arising from accidents such as falls, wounds, burns, injuries from machinery, &c.

4. *Cases requiring urgent Medical Advice* of all degrees of importance, from toothache to cholera and delirium.

5. *Cases demanding professional sympathy* rather than medical help, and which had for their scenes and times the last moments and the death beds of suffering and distress.

6. *Cases of consultation upon matters commercial, professional, and domestic* which refuse to be grouped, but which required knowledge, judgment, and secrecy.

I showed my mentor the bundle of memoranda just before I left his house, and he was glad I had preserved them, "more specially," he said, "for this reason: you will see in them how curiously varied is the public demand upon us pharmacists, and how curiously are our labours sometimes valued. The shop on our right is a draper's, and that on our left is a bookseller's, and their proprietors are known to be as good and as worthy men as ourselves, but the public demand nothing from them but rapiers and books. Ours is a pharmacist's, and in addition to the supply of drugs, chemicals, and medicines, the same public looks to us as if by right for prompt practical help in many of its difficulties and in much of its trouble. We are supposed to be tender of heart, but with nerves drilled as a surgeon's; prompt and self-possessed in emergency, but content to retire and be forgotten when the professor appears upon the scene; our knowledge must be large and our tempers sweet, but whilst we must never forget that we are shopkeepers; what of the battle of life we have to do must be done in the trenches rather than in the arena; well, let us accept our rôle: a campaign may be won as much by the pickaxe and spade as by the word and rifle."

At the conclusion of my apprenticeship my mentor advised me to devote a year exclusively to scientific study. "Adopt which school you prefer, only let it be one in which your mind and intellect may be trained and drilled as well as informed, strengthened to acquire rather than inflated with knowledge. This is the purpose of all good education. There are schools of both kinds, and, as a rule, by their fruits we know them." So made my selection with what care I could, and spent ten months in the way he advised, and then passed the examinations, Minor and Major, of the Pharmaceutical Society.

Once more referring to the advice of my old friend and mentor, I sought and obtained a situation at one of the historic houses of pharmacy. Here I remained nearly three years, gaining much experience and making some valuable friendships.

A favourable opportunity of commencing business on my own account then occurred, and I became an independent pharmacist.

I have had hard work for some years, and I ultimately have achieved fair success, and I have been lately honoured by an invitation to sit at the Board of Examiners of the Pharmaceutical Society.

I hope some day to be able to accept this crowning honour to my professional career.

There ends our autobiography: a plain, unvarnished tale, of commonplace material enough, let us hope, to fit the experience of all.

And I again address you, gentlemen, in my proper person.

It is, I think, an every-day story; yet as I review it I detect a something which when clothed in human form presents a figure of some significance in our present search.

The form is that of a man, charged with an exalted idea of duty, filled with human sympathy, well informed in general knowledge, accurately informed in the special knowledge of his art, with habits drilled to exactitude and care, and fingers trained to dexterity and neatness, and covering all with an imperious determination to do the right thing.

Shall I presume to say that some such summary as this defines the model pharmacist of to-day? I think I may, and if the definition be fair, then I presume further to assert that he stands the type of a high order of being, and that the sphere of life that provides such a part in the present certainly need not offer a very dreary future.

I think, moreover, I can detect glimpses of a process by which fit actors may be trained to fill this part with credit. Amongst the points of this process I note the care with which the future pharmacist was selected and his qualifications tested before admission as a pupil, the patience with which his interest in the daily work was watched and fostered, the discretion that marked the gradual infliction of responsibility upon his forming character, the judgment that regulated his introduction to the sciences, and encouraged his cultivation of their mysteries until they became to him a joy, the final trust and confidence that made him the depository of experiences only to be revealed to the initiated, and more or less each and all of these points appear to me of value. But I see that the key of the whole process lay in this, that the man was possessed by a high idea of the duties of his calling, to which every other consideration connected with it was made to bend, he was jealous of those duties as of a daughter's honour, and could not consign them to one that was unworthy. He felt his art to be a living thing, with a past, a present, and a future, and though he laboured in it, and lived by it, he refused to regard it as a possession of his own, but only as a trust to be held in common with others, for a time, and be transmitted to his successors, if it might be possible, in augmented value. Verily I think this man had his reward. The inheritance committed to his charge he faithfully passed on to hands he had helped to make worthy, and the "future of pharmacy" must, I think, to his eyes have appeared fair and bright.

I forbear to dwell upon the reverse of this picture, though truth compels me to admit that such, alas, may be found; and I feel, therefore, forbidden to interpret as hopefully as I should wish the tenor of the "shadows of things to come" which these considerations have raised.

But I may perhaps venture to say that the gleam of light that casts these shadows bears with it, as I think, a message of high import. I read it thus: The future of our art rests with ourselves. What we strive to make it, that it will become.

It is a message of severest warning; but it is also one of hope. The warning may reach us all alike, but the comfort of the hope, I think, will be experienced in proportion to the consciousness of duty well fulfilled.

Had this address been delivered in England, it would have naturally terminated at this point. But I cannot conclude without saying that the assembling of the Pharmaceutical Conference this year in Ireland (let me gratify myself by saying in the "Sister Island") is, I am sure, a great pleasure to its English members.

That strip of sea which for so many purposes serves to unite the two peoples, and to make them one, has acted, alas, upon some of us as a barrier and has kept us apart.

I fear that pharmacy on both sides of the water may have suffered somewhat by this enforced separation. Let us hope that this gathering will tend to the rectification of any such deficiencies. At any rate I feel assured that this Dublin meeting will not fail in the great object of the Conference, which is the promotion of scientific pharmacy and the cultivation of feelings of mutual respect and cordiality among those that practise it.



AND

Literary Notes.

Rabies or Hydrophobia: Its Nature and Treatment. Being the Report of the Special Commission appointed by the Medical Press and Circular, with Valuable Additions. London: Baillière, Tindall & Cox.

A PARAGRAPH has recently been doing the Grand Tour in the papers. It professed to describe the horrible death from hydrophobia of a young Frenchman. He was bitten by a dog, and immediately, without consulting a doctor, gave himself up for lost, bought and studied all the books on the subject he could obtain, and on the day on which he expected its symptoms which might have indicated rabies or several other diseases did actually set in. Death soon followed. No one who has read the work before us would ever regard his death as due to hydrophobia. The chief horror of the disease has been the mystery which has surrounded it. Although this book does not make every part of the subject as clear as a mathematical problem, yet the variety of points from which the subject is treated, the industry everywhere displayed, the caution of the criticisms, and the completeness of the compilations, are sure to gain the confidence of the reader. We can imagine nothing better suited to give the student the spirit of scientific scepticism, so essential to the advancement of sound knowledge, than the twenty pages devoted to the curiosities of treatment. The whole book is saturated with the cautiously sceptical spirit which receives nothing and rejects nothing till evidences have been multiplied and sifted, and this in our opinion adds much to its real value. We have not space to analyse it. We can only say that whatever the reader wishes to know about canine madness, if anything has been written upon it he will find it here. Though not pretending to originality, it supplies the one thing essential to originality—an accurate and complete account of all that has been written on the subject.

The Adoption of the Metric System of Weights and Measures by the U.S. Marine-Hospital Service for Purveying Medicines and for other Official Medical Purposes, together with Rules for Converting the U.S. Apothecaries' Weights and Measures into their Respective Equivalents in Terms of the Metric System, and Suggestions for Writing Metric Medical Prescriptions, &c. Washington: Government Printing Office. 1878.

This little pamphlet is the work of Oscar Oldberg, Doctor of Pharmacy, chief clerk and acting medical purveyor to the department. We first find rules for converting apothecaries' weights and measures into grammes and cubic centimètres. The rules are acknowledged to give results of only approximate accuracy. Next follows a table of approximate equivalents of apothecaries' weights and measures in metric terms; then a metric dosological table, in which the doses are expressed in terms of both systems. Here again the metric doses are admitted not to be the exact equivalents of the apothecaries, but the error is said to be on the safe side.

Phosphates in Nutrition. By M. F. Anderson. London: Baillière, Tindall & Cox.

The author is a licentiate of the Royal College of Physicians of Edinburgh, and a Member of the Royal College of Surgeons of London; both titles he acquired in 1860. We believe he has not published any works previously. In that before us he enunciates the theory that in diseases depending on errors of nutrition (starvation, fatty degeneration, rickets, scrofula, consumption, leprosy, cancer, and scurvy), several are due to the absence or presence in insufficient quantity of phosphoric acid in the food. He believes that phosphoric acid is the only form in which phosphorus exists in the body. So far as they go the researches of M. Fison support this view. That gentleman has proved that pyrophosphates and hypophosphites take no part in nutrition, but act simply as diuretics. Mr. Anderson finds that, as regards the soft tissues, phosphoric acid is chiefly, if not entirely, confined to those that are vascular.

The insufficient supply of all food is known to produce general starvation. Fatty degeneration of the muscular tissues

results from deficiency of albuminous substances, caused either by their absence from the food or by imperfect assimilation. An insufficient supply of mineral matters (particularly phosphates) is considered by the author to be the main cause of consumption, scrofula, cancer, and other diseases, whose connection in this point with rickets has not been previously recognised. The analytical evidence adduced seems to give strong support to the theory. It certainly deserves, and will probably receive, the critical examination we are scarcely competent to give it.

The Physiological Action of the Bark of Erythrophleum Guinense, generally called Casca Cassa, or Sassy Bark. By T. Lauder Brunton, M.D., F.R.S., and Walter Pye, Esq.

This is a reprint from the Philosophical Transactions of the Royal Society of a paper read on June 15, 1876. The bark is used by the natives of Angola as an ordeal, "persons accused of theft, witchcraft, or other crimes being made to drink an infusion of it. If it causes vomiting only the person is acquitted; but if it causes purging, he is considered guilty, and is either allowed to die of the poison or is at once killed." The first few paragraphs of this reprint give some further interesting information on this and allied ordeal poisons. Then follow a few notes on the chemistry of the bark, and the record of fifty-six experiments made to determine its physiological action. Since this paper was read, and partly in consequence of it, the bark has attracted a good deal of attention as a therapeutic agent. This reprint comes therefore very seasonably to teach all who care to know the main characteristics of its action. It is evident that a paper only to be found in the Philosophical Transactions is not accessible to many, and all who see with pleasure the advances towards scientific precision now being made by medicine will feel indebted to the authors, not only for their work, but for making it so widely known.

Prescription Writing. By F. H. Gerrish, M.D., Professor of Materia Medica and Therapeutics in the Medical School of Maine, &c. Second Edition. Portland, Me.: Loring, Short & Harmon.

A LITTLE book of fifty pages designed for the use of medical students who have never studied Latin. We endorse the opinion of Dr. J. T. Daua, which is sent with the book, that as long as medical schools allow such students to matriculate it will have a wide circulation. Doubtless, as the author urges, it is far better to write a prescription correctly like a parrot, than incorrectly like a parrot, and so far the book may be praiseworthy.

Finlay Dunn. Veterinary Medicines. Fifth Edition. Edinburgh: David Douglas.

THERE is an air of vigorous conciseness about this book, in spite of its 500 pages, which is very pleasant. We do not think anyone would like to see much of it left out. The author assumes in his readers a familiarity with medical terms and with the elementary facts of chemistry. He commences his work with short essays on the actions of medicine, arranged according to a plan given on page 11, under such headings as demulcents, antidotes, and emetics. Then follows a section on Veterinary Pharmacy, where staple preparations like balls and fomentations come in for the longest notices. More than 400 pages are devoted to the consideration of veterinary medicines, their actions and uses, the treatment of each being varied as occasion requires. The work is completed by an index of diseases and an index of medicines. The latter does not differ from ordinary indexes, but the former is a valuable guide. Under the names of diseases alphabetically arranged are aphoristic directions for the treatment of each. Popular names, such as sturdy, farcy, mirlenders, and sallenders occur in their proper order, but are furnished with cross references to the places where their scientific equivalents occur. To a country druggist who possesses the intelligence so characteristic of his class, this book is sure to be very useful.

Aids to Chemistry, specially designed for Students preparing for Examination. Part II. Inorganic. The Metals. By C. E. Armand Semple, B.A., M.B., &c. London: Baillière, Tindall & Cox.

The author says, in the last paragraph of his preface, "I am fully aware how infinitesimal is the amount of justice it is possible to bestow upon the chemistry of the metals in the few fol-

ing pages, and I can only hope that the present volume may be serviceable to the tyro upon the threshold of his study." He must confess that we have not yet grasped Mr. Semple's as either of justice or of tyros, if the book before us contains nothing of the one or is likely to be useful to the other. What ideas would a tyro gain from these statements, made before the first page is finished? Metals "differ considerably from one another . . . the lightest presenting the greatest combining powers with oxygen; the heavier the reverse." "A salt formed by the junction (*sic*) of a metal with a non-metallic element, and may be defined as the union (*sic*) of an electro-positive with an electro-negative." . . . "If the name of the acid terminate in *ous*, as sulphurous, &c., the resulting salt is made an *ite*. If the acid terminate in *ic*, as sulphuric, &c., the salt then receives the name of *ate*; either being sub- mono-qui- di- tri- tetra- sulphite or sulphate, according to circumstances."

The first sentence on p. 3, by its grammatical structure, makes potassium and not the hydrogen burn when that metal is thrown upon water. Lower down it is said that the "soluble potassium salt" obtained from the ashes of plants is the crude potassium carbonate, and when purified by recrystallisation is called 'pearl ash.'" Pearl ash is never made thus; the crude carbonate is never in crystals; it is never purified by crystallisation; and the salt is rarely or never crystallised. Further leaf we are told that by adding K_2CO_3 to CaH_2O_2 , KHO is produced and chalk is precipitated. We never yet knew a precipitate produced by the mixture of two solids without the intervention of a fluid, and do not quite see why a tyro should be made to take the liquid for granted. On the same page we are told that "potassium carbonate, termed commercially pearl ashes," is very soluble in water. It occurs in white luminescent crystals. . . ." A learner can only understand from this that pearl ashes is the solitary form of the salt to be had in commerce. The Pharmacopœia states that the carbonate is a white crystalline powder, which is not the same as the crystals, and we defy the author to purchase any crystals in the ordinary course of trade. On page 8 we learn that sodium carbonate is known commercially as soda ash. It is prepared entirely from sodium chloride by the following processes." This clearly means that each of the processes mentioned produces the carbonate from common salt. Now tell us what those processes are. We omit the symbols, which are correct.

(1) The Salt-cake process, viz., the manufacture of sodium sulphate from common salt. Sulphuric acid is added to common salt. Hydrochloric acid and sodium sulphate are produced.

This is one of the processes!

(2) The Soda-ash process, viz., (a) the preparation of sodium carbonate, and (b) its separation and purification.

(a) The salt-cake is heated with powdered coal. Carbonic acid is given off, and sulphide of sodium remains.

This is the preparation. Now for the separation and purification.

(b) The sulphide of sodium is heated with chalk. Sulphide of lime and carbonate of soda result.

But why go on? We have passed over many statements usually misleading which occur in eight short pages, the whole of which would hardly fill two pages of THE CHEMIST AND DRUGGIST, but the few we have selected will suffice.

Goddard's Chemist's Price Book. Eighth Edition. Enlarged and revised according to the British Pharmacopœia of 1867, and additions of 1871. By Joseph Young.

Mr. J. GODDARD, of Station Street, Leicester, has favoured us with a copy of this the latest edition of his price book. The fact that this is the eighth time it has made a fresh appeal to the public proves that the seven previous ones have been successful. The book when accurately filled is worth its weight in gold in any establishment where memories are short and stocks are varied. Time and temper, and the patience of customers, will be saved on a hundred occasions in the year, and that most sparing cause of unpleasantness between principals and subordinates, the ordering of fresh stocks while the existing ones are large enough, will always be avoided when this is made the daily handbook.

In a library in Wassenstein, near Cassel, in Germany, in the agricultural department, is a novel collection of books. At first glance they appear like rough blocks of wood, but upon closer examination it will be found that each one is a complete history of the particular tree which it represents. From the back of the book the bark has been removed from a space large enough to admit the scientific and common name of the tree as a title. One side is formed from the split wood of the tree, showing its grain and natural fracture. The other shows the wood where worked smooth and varnished. One end shows the grain of the wood as left by the saw, and the other the finely-polished wood. On opening the book one finds the fruit, seeds, leaves, and other produce of the tree; the moss which usually grows upon its trunk, and the insects which feed upon various parts of the tree. To all this is added a plainly printed description of the habits, usual location, and manner of growth of the tree, all forming a complete history of each kind of timber represented, and in form readily understood by all.

MARK TWAIN'S "SCRAP Book," one form of which is especially constructed for druggists, consists of pages almost covered with adhesive bars, thus rendering the user independent of the never-handy gum-bottle. It would be rather rough on Mark as an author to say that this one hundred and fifty blank-paged volume was the greatest achievement of his genius; but certainly the certificate with which he introduces his "invention" is witty enough to induce us to reproduce it, even though we are conscious that in so doing we are victims of the plant laid against us and other journals to get a gratuitous advertisement. Mark writes thus:—

"Messrs. Slote, Woodman & Co.—I hereby certify that during many years I was afflicted with cramps in my limbs, indigestion, salt rheum, enlargement of the liver, and periodical attacks of inflammatory rheumatism, complicated with St. Vitus's dance, my sufferings being so great that for months at a time I was unable to stand upon my feet without assistance, or speak the truth with it. But as soon as I had invented my self-fastening scrap book, and begun to use it in my own family, all these infirmities disappeared. In disseminating this universal healer among the world's afflicted, you are doing a noble work, and I sincerely hope you will get your reward, partly in the sweet consciousness of doing good, but the bulk of it in cash."

Very truly yours,

MARK TWAIN.

MR. G. W. WIGNER, F.C.S., was some time ago commissioned by the proprietors of the *Sanitary Record* to make a series of analytical reports on the quality of the water supply of the various seaside resorts in England and Wales. No one can doubt the importance of the inquiry, and we are very glad to observe that the reports have now been made up into a concise form, and published in a shilling pamphlet under the title of "Seaside Water." The water supply of no less than 107 towns has been reported upon by Mr. Wigner, and though in many cases the results are sometimes unfavourable to a startling degree, we are not aware that any of them have been disproved, though in the course of their publication a few of them have been challenged by the inhabitants of condemned places. In some instances, on the other hand, reforms have been already instituted. Allowing a reasonable margin for possible errors, such as an analyst would be especially liable to in the collection of samples from so wide an area, we may assume that Mr. Wigner's statements are generally accurate.

The author has adopted for the classification of all these waters a system according to which he separates all into three great divisions. The first includes the purest waters and others down to about the standard of the worst specimen of the London public supply. This point is fixed at 35, the figure being arbitrarily chosen. From 35 to 55 covers the second class. The rest vary in badness; but "it may be taken that an average third-class water is at least three times as heavily contaminated as the average supply of the Southwark and Vauxhall Water Company;" while many of the specimens reported on Mr. Wigner declares "were really so impure as to be incapable of classification under any other name than diluted sewage." A certain well at Rottingdean and the public supply of Walton-on-the-Naze have gained the questionable fame of figuring at the head of the list in respect to contamination.

Mr. Wigner deduces from his figures a curious fact. Taking

the aggregate population of the towns of each class, and comparing with that the estimated total of visitors, the following result comes out:—

	Population	Annual visitors	Proportion
First Class (53 towns) ..	450,000	1,300,000	290 to 100
Second Class (34 towns) ..	260,000	360,000	135 to 100
Third Class (5 towns) ..	60,000	40,000	67 to 100
Towns supplied by wells ..	40,000	40,000	100 to 100

This table seems to show that visitors have some intuitive perception and appreciation of the wholesomest places to visit. It also hints forcibly at the probable pecuniary advantages of an investment in a good water supply—at any rate, in towns which depend for their prosperity on the favour of an outside public.

MEDICAL GLEANINGS.

The *Students' Journal*, which, we need hardly say, is a mighty authority on parliamentary matters, speaking of the difficulties in the way of the Duke of Richmond's Medical Bill, says, "The chemists and druggists are opposing the Bill, but their opposition does not count for much." We shall see.

* *

FEES FOR MEDICAL EDUCATION.—The authorities of the various London medical schools (except the London, Middlesex, Charing Cross, and Westminster), and of Owens College, Manchester, have arranged for a simultaneous raising of the fees for a complete course of medical study to about 130/-.

* *

THE *Students' Journal* has followed in the wake of the *Medical Examiner* with a would-be scandal column, and indulges in such delicate wit as the following:—"In spite of the fuss and hubbub Sir Henry Thompson thought fit to make about the microphone, he has not secured a seat on the Council (of the College of Surgeons). Better luck next time, Sir Henry."

* *

TREATMENT OF NEURALGIA.—Professor Peters, of Paris, claims to have made an astonishing cure of neuralgia facialis by the administration of 6 grains of bromide of potassium thrice daily for a month, 4 grains thrice daily for a second month, and 2 grains thrice daily for a third month. Picture the ghastly look of despair with which a tie-doloureux sufferer might be expected to commence a treatment which offered him a prospect of relief within three months!

* *

NITRITE OF AMYL IN SEA-SICKNESS.—Dr. Crochley Clapham, of Surbiton, has recommended in the *Lancet* the inhalation of nitrite of amyl as a preventive of sea-sickness. He recommends some capsules containing the drug, manufactured by Allen & Hanbury, one of which can be broken as required. A handkerchief is moistened with the liquid, and applied to the mouth and nostrils. Dr. Clapham's experience with this drug has been confirmed by other physicians. The theory is that sea-sickness being due to a pressure of blood on the brain, the nitrite acts by relieving the congestion.

* *

MADAME HAHNEMANN, who died in Paris on the 29th of last May, at the age of 78, does not seem to have shared with her husband the veneration of the homeos. She was 35 when she married the prophet, and he was 80. The marriage took place at Câthon, and she persuaded the old man to remove to Paris, where he very rapidly accumulated a considerable fortune, which (says the *Homeopathic Review*) "she took every precaution to secure for herself when death should remove him from the world." It appears she has made several attempts to trade off the old doctor's case-books, but her extravagant demands frightened would-be publishers. It is probable, however, that those records will now see the light.

MR. GOUGH, the temperance orator, has recently returned to England. He was welcomed at a garden party at Westminster, where he found among the guests some of our leading physicians, Sir W. Gull, B. W. Richardson, and others. They talked about alcohol as a food or a medicine. Gough said his theory was that it was like sitting on a hornet's nest—stimulating but not nourishing. He said, too, an American schoolboy once wrote an essay on pins, which, after ascribing all other virtues to those products, concluded with the assertion that pins had saved thousands of lives—"How?" asked the master—"By people not swallowing them," was the prompt response.

* *

SUPPRESSION OF DYSENTERY.—Dr. Dounon.—From observations made in Cochin China, it appears that dysentery is due to certain animaleulæ, *Anguillula stercoralis* and *dysenterica*, *Ankylostoma dysenterica*, &c., introduced into the intestinal canal by means of polluted waters. The disease may be obviated by never partaking of water unless it has been previously purified by alum, or, better still, by boiling. The treatment with alum has been successfully used by the natives of Annam from time immemorial, and during six years has completely preserved the French troops in Cochin China from this dreadful scourge.—*Chemical News*.

* *

THE ACTION OF QUININE.—Mr. W. H. T. Power, B.A., L.R.C.P., writes an interesting note in the *Lancet* on the action of quinine, basing his theory on observations in Mauritius, and especially in regard to malarial fevers. Mr. Power seems to believe that quinine forces the circulation, "just as the heat of the fire does when the burnt finger is put close to it (the old-fashioned remedy for a small burn, to stop the pain), and as Skey's plan of painting a strong solution of nitrate of silver over a burnt surface, to relieve pain. I believe I am right that in both these cases the palsy of the vaso-motor nerves is overcome, the circulation restored, and the pressure of the stagnant blood in the swollen veins on the nerves removed."

* *

PRESCRIPTIONS PREPARED! FAMILIES ATTENDED BY THE DAY WEEK, OR MONTH!! PROSECUTIONS UNDERTAKEN!!!—I am told that the members of the Apothecaries' Society are very irate because the interest on their shares, which once amounted to something like 30 per cent. per annum, has been gradually diminishing, till it is now little more than 5 per cent. There must be mismanagement somewhere; but I question whether it would not be a good thing for the Society in the end if it had to shut up shop altogether. It might have a great future if it would only get rid of its gallipots, change its name, and throw open its membership to every general practitioner.—*Medical Examiner*.

* *

THE *Medical Press and Circular* of July 24, after quoting the letter in our last issue from "One who prescribes over the counter," referring to the unqualified dispenser often employed by surgeons and apothecaries, says:—"We can assure this correspondent that, if he or the Chemists' Trade Association will take in hand the abuses of which he complains, and put a stop to the malpractices to which he refers, none will be better pleased than the medical profession at large. We have no power to prevent individual members of the profession sacrificing public advantage to their own pocket interests, and we really do think that the chemists and druggists would occupy their energies more profitably in agitating against doctor-shopping than in endeavouring to maintain a system of unqualified practice, which, they must feel, cannot be defended on any good ground."

* *

DR. FERRAND, in a recent number of the *Union Medicale*, summarises the results of the practice of the various Paris physicians who have published their experience in regard to the treatment of diphtheria during the past two years, throughout which period it has been very prevalent in that city. Tannin applied locally seems to have been moderately successful. Salicylic acid and salicylate of soda have failed entirely. Carbolic camphor (camphor 25, alcohol 1, carbolic acid 9) has been praised. This is applied either pure or with oil of almonds. Cubobs and copaiba have been administered by one, and a tincture of eucalyptus by another physician. But chlorate of potash has proved the favourite and most successful remedy. Seelig-

uller believes that its action is at least partly due to the oxygen with which it supplies the blood, and which he supposes the diphtherial bacteria have abstracted. Ferrand, however, believes that its success should be rather ascribed to its local effects.

**

If both Medical Bills fall through, I hear that Mr. R. H. S. Carpenter and Dr. Lush will draft a more perfect Bill than that on behalf of the Medical Defence Association. Mr. Carpenter has already expressed the opinion that the Association Bill (which is nothing more than Lord Ripon's with a couple of clauses added) is from the point of view of medical interests "infamous." I will back Mr. Carpenter to know that is wanted better than most men, for he has given time to—which is a great deal more than signatures.—*Medical Examiner.*

When Mr. Carpenter says the Medical Bill is "infamous," it simply means that it is imperfect from his point of view. He, we presume, the gentleman who has so actively pressed forward the prosecution of unlicensed prescribers in the East of London. A letter from the secretaries of the Medical Defence Association, published subsequently in the *Medical Examiner*, explains that Dr. Carpenter runs the medical "Alliance" shop, and is not connected with the medical "Defence" concern.

**

MACBETH's doctor was lost when he was asked to minister to a mind diseased: but he was no doubt an allopathic practitioner. Dr. Skinner, the homeopathic physician of Liverpool, says in his "Diseases of Women," quoted in the *British Medical Journal* :—"In allopathy, the soul is nowhere; in homeopathy, the state of the soul and mind is a *sine qua non*. Allopathy has no means of affecting the soul or mind, except those of a moral kind; whereas homeopathic medicines act upon the spirit or soul of man, and through it and by means of it, and with a certainty which is as remarkable as it is true. By way of illustrating the power of homeopathic medicines over the mind and its affections, I shall give the following example. A favourite cat of my own had kittens. All were drowned but two; then one was given away, and ultimately the remaining one was given to a friend. The mother of the kittens became inconsolable, and went all over the house mourning her loss in unmistakable tones of grief for five days and nights, 'making eight hideous' with her cries. One globule of *Ignatia* cured her in half an hour, as she never cried again."

**

AN AMERICAN MEDICAL VIEW OF COUNTER PRACTICE.—There would be a better chance of amicable relationships between physicians and pharmacists if the former could take as fair a view of both sides of the question as does the editor of the *Philadelphia Medical and Surgical Reporter*, who says:—

It is high time that the vocations of the pharmacist and the physician be recognised as two wholly distinct careers. The doctor is yet, in many places, physician and apothecary in one, and the saddlebag system of dispensing medicine and advice has done the pioneer work in many a now thronged and prosperous locality. It was indispensable; it may be so yet, in the frontiers; but when not necessary, the custom should be discountenanced. Pharmacy is too complicated, too delicate, too difficult a science to be made any longer an appendage to a medical education, or to be taught in any other than a superficial manner in medical schools. Pharmacists should be men highly trained and specially given to their delicate and responsible work; for more delicate or careful work than the compounding of prescriptions can hardly be named; the apothecaries bear the people's lives in their hands, and the subject is one of real consequence to every person. The physicians of this country are called upon to encourage the separation of the two vocations, in their own interest. They cannot, indeed, do away with the "counter prescribing" of the apothecary. Accidents and cases of sudden illness are brought to him, and while the physician may be at once summoned, it is still necessary—at least, it is desirable—that the apothecary should be able to take the place of the doctor for the time, and do the useful professional offices.

**

MEDICAL WOMEN.—The British Medical Association, which as just met at Bath, has had a somewhat lively discussion respecting the admission of "females" to the rights, profits,

privileges, and advantages of its membership. The rules of the Association have hitherto permitted the election by branches of "all duly-qualified medical practitioners" who were recommended by a certain number of members, and two lady practitioners—Mrs. Garrett Anderson and Mrs. Dr. Hoggan—have been so elected. Dr. Wade, of Birmingham, moved as a new article of the Association that no female should be eligible for election, urging that if women became members of the profession of medicine or surgery it did not necessarily follow that they should become members of the Association, which, though an incorporated society, was, in fact, a movable, scientific, and social club, the members of which might not be disposed to discuss medical or surgical cases in the presence of women. This proposal was seconded by Dr. A. P. Stewart, of London, while Dr. Norman Kerr, of London, and Dr. Burchardt, of Manchester, warmly supported the continued admission of ladies. Dr. Sissons, of Barton-on-Humber, and Mr. Husband, of York, having spoken in favour of the motion for excluding them from membership, Mrs. Garrett Anderson, who was present, made a singularly able speech from her own point of view. She explained how many diseases there were to which women were especially subject, on which it was only reasonable to expect that a medically-trained woman might throw light, and she claimed that women had as much right as men to the advantage that might accrue from discussion and from the impulse of mind on mind. The meeting, however, ultimately passed the motion, though there was a strong opposition.

Pharmaceutical Notes.

AN EASY TEST FOR GERANIUM OIL.*

GERANIUM OIL, distilled from the leaves of the *Pelargonium rosatum*, in the East Indies and Algiers, is a colourless fluid, smelling like roses, but distinguished from otto by its fluidity at the freezing point of water, by its solubility in 70 per cent. spirit, and by other marks. It is frequently adulterated with fatty oils, hydrocarbons (such as copaiba oil), &c. The purity of the oil may be determined by mixing 6 drops with 84 minims (5 c.c.) of 70 per cent. spirit of wine. If pure, the oil will dissolve on shaking. If adulterated, a turbid mixture will result.

ON CERTAIN DISINFECTANTS.

MR. G. B. LONGSTAFF, M.A., M.B. Oxon, and Mr. E. H. Hare, M.A. Oxon, M.R.C.S., report in the *Sanitary Record* a series of experiments made by them with a number of popular disinfectants. They took a quantity of urine, diluted it with water, and measured 100 cubic centimetres into each of 34 jam pots. They then added to each part the one-thousandth part of its weight of a disinfectant, making each experiment in duplicate. In two cases they added water only. The results were as follows:—

Antiseptic, 0.1 per cent.	Day on which mould appeared		Day on which putrefactive odour was distinct	
	I.	II.	I.	II.
Water only	9	9	14	13
Terebene (Dr. Bond's)	10	10	13	18-23 ?*
Carbolic Acid (Calvert's No. 5)	None by 75th day	None by 75th day	75th day	
Burnett's Fluid	9	9	12	12
Condy's Red Fluid	10	10	15	10
Turpentine	13	14	18-23 ?	18-23 ?*
Chloralum	8	8	10	11
Borax	8	9	18-23 ?	18-23 ?*
Cupralum (Dr. Bond's)	8	8	12	12
Ferralum (Dr. Bond's)	None by 14th day	14th day	8	8
Sodium Salicylate	10	10	14	14
Sanitas (Aromatic, No. 3)	8	9	9	10
Sanitas (Inodorous, No. 3)	9	9	15	11
McDougal's Fluid	12	9	13	12
Sanitas (Aromatic, No. 1)	9	9	14	14
Sanitas (Inodorous, No. 1)	9	8	15	11

* Some uncertainty as to exact day, owing to absence from home.

THE FORTY POISONED TROOPERS.—Towards the end of last month considerable excitement was caused by the report that forty of our Indian soldiers stationed at Malta had been poisoned by the accidental administration of a disinfectant in place of lime-juice. At first it was generally believed to be

carbolic acid. It has since been shown that it was Burnett's Fluid. Taking it for granted that carbolic acid was the poison, Professor Wanklyn wrote at once to the *Times*, stating that there was "Much difference of opinion among sanitarians as to the efficacy of carbolic acid as a disinfectant;" that he did not believe in it himself; and "that in all probability more persons have been poisoned of late years by carbolic acid than by any other single poison." Three days after F. Versmaan, Ph.D., Fellow of the Institute of Chemistry, in the same journal, "fully endorsed Professor Wanklyn's condemnation of carbolic acid." He stated that both chloralum and Condyl's Fluid, and "more particularly the former, are more efficacious than carbolic acid, and free from all the disadvantages which attend the use of the latter substance." Dr. Urban Pritchard, in a letter printed immediately under the last, said that he "could not agree with Mr. Wanklyn that this disinfectant should be discarded from general use; but did think that it ought to be generally known that its use requires the same care as would be observed when employing any other dangerous corrosive, such as oil of vitriol, &c." The table printed immediately above this article was first published, and had attracted our attention some time before the letters quoted had been written. It will, therefore, serve as an independent witness of the most unimpeachable kind, whose cross-examination may aid us in forming a correct estimate of the value of the assertions of Professor Wanklyn and Dr. Versmaan. In the first place, we would remark that, besides Professor Wanklyn and Dr. Versmaan, no sanitarians are mentioned who doubt the disinfecting powers of carbolic acid. Messrs. Longstaffe & Hare state that diluted wine became mouldy in 9 days when mixed with water only; in 8 days with $\frac{1}{10}$ per cent. of chloralum; in 10 days when mixed with the same quantity of Condyl's Fluid; while after 75 days the fungus had not appeared when the liquid was mixed with the same proportion of carbolic acid. The diluted urine when mixed with no disinfectant acquired a distinctly putrefactive odour in 13 or 14 days; with chloralum this odour appeared on the 10th or 11th day; with Condyl's Fluid in one experiment on the 10th, in another on the 15th; with carbolic acid it had not appeared 75 days after the mixture was made. These figures seem to teach us that carbolic acid is, at the lowest computation, five times as powerful an antiseptic as either chloralum or Condyl's Fluid. It may be objected to this that antiseptic efficacy is not the same as disinfecting power, that it is one thing to prevent and another to destroy infection. This is true, but we would ask our readers to turn to the paper by Mr. A. H. Mason, published on page 429 of THE CHEMIST AND DRUGGIST for November of last year. This is probably the authority most accessible to them, and it certainly cannot be accused of partiality.

Obituary.

HOUGHTON.—On July 17, 1878, Mr. Henry Thomas Houghton, chemist and druggist, Oxford. The deceased was 31 years of age, and was the only son of Mr. Councillor Houghton, of St. Clement's, Oxford, with whom he was in partnership. For many years the deceased was a member of the Oxford Rifle Corps, and was one of its best shots. He had been successful in taking prizes both at Wimbledon and at the City Prize Meeting. Last year he filled the office of president of the East Ward Liberal Association, which he was obliged to resign in consequence of continued ill-health. He was always ready to assist in any good work, and this fact, joined with his affable and genial manner, made him a general favourite, not only in the parish in which he resided, but in other parts of the city where he was well known. The funeral, which took place in St. Clement's churchyard on Sunday, was the occasion of a manifestation of public sympathy and respect rarely witnessed in Oxford at the interment of a private individual. Upwards of 100 members of the rifle corps, under the command of Capt. Bickerton and Lieut. Bacon, accompanied their late comrade to his last resting-place; several old members of the corps also followed as a mark of respect to the deceased; while the church and churchyard were crowded with the general public, probably not less than 2,000 persons being present.

JONES.—On July 10, 1878, Mr. Charles Jones, chemist and druggist, Marlborough. The late Mr. Jones was apprenticed at

Gosport, and commenced business at Cowes in 1854. In 1862 he purchased an old and well-established business from Mr. Stone, of Marlborough. He had suffered a painful illness for two years before his decease. He was highly esteemed for his integrity and liberality by all who did business with him.



A DRUG IN THE MARKET.—The Tichborne Hair Restorer. —*Funny Folks.*

ABNORMAL DEVELOPMENT OF CONSCIENCE.—We are glad to note that Messrs. Peck & Co. well-known apothecaries of this city, have discontinued the sale of patent medicines, as no belonging to legitimate pharmaceuticals.—*Philadelphia Medical Reporter.*

A NOVEL IDEA.—An intoxicated man saw two tramway cars passing him the other evening with red and blue lights in the front and rear. His fuddled brain comprehended coloured lights, and he was heard to say to himself, "Must be pretty sick—sickly here; they are running chemists' shops about on wheels!"

A CONTEMPORARY says that a capital plan of protecting horses and cattle from the tormenting attacks of flies in hot weather is to wash their coats in the morning with a decoction of walnut leaves, the peculiar smell of which effectually keeps the would-be marauders at a distance. The decoction is said to have the further power of destroying any eggs that may have been already deposited in the skin.

A. KING & Co., of Florence, Mass., are introducing an article called "Chemical Spirit Gas," manufactured from potatoes, and said to be a very good illuminating oil. It is free from bad odour, and is non-explosive. During the testing process lighted papers were thrust into the oil in a lamp, which had the effect of producing a bright flame. The oil is said to give a bright, steady light, superior to kerosene.

AN INTERESTING LAKE.—A lake of soda water, known as the Lake of Lonar, has hitherto formed one of the most useful as well as picturesque features of the Hyderabad assigned districts. The salt collected from it has been widely used for washing and dyeing chintzes; and when, in the dry weather, evaporation reduces the level of the water, vast quantities of soda are gathered on the shore. From an official report, however, which has just been issued we gather that the supply of soda now greatly exceeds the demand, which, owing to the distance of the lake from the line of railway, has always been a local one. The largest consumers have hitherto been the villagers in the territories of His Highness the Nizam, but the prohibitory duties which have lately been imposed on soda by the Durbar have, it is said, checked the trade in this direction. No fresh supplies were taken from the lake in 1876-7, as large stocks of unsold produce remained on hand from the manufacture of the preceding year.—*Times of India.*

DISH-CLOTHS AND DISEASE.—A lady writes in an American journal on the miserable custom of using dirty cloths for wiping dishes. She believes these are frequently the seats of typhoid germs. In a brilliant peroration she says:—"You may only brush and comb your head on Sundays, you need not wear a collar unless you go from home—but you must wash your dish-cloths. You may only sweep the floor when the sun gets right; the windows don't need washing, you can look out of the door; the spider's web on the front porch don't hurt anything—but as you love your lives, wash out your dish-cloth. Let the foxtail grass grow in the garden (the seed is a foot deep anyway), let the holes in the heels of your husband's foot-rags go undarwed, let the sage go ungathered, let the children's shoes go two Sundays without blacking, let the hen sit four weeks on one wooden egg—but do wash out your dish-cloths. Eat without a table-cloth, wash your faces and let them dry, do without a curtain for your windows and cake for your tea—but for heaven's sake keep your dish-cloths clean."

OPIUM NOT POISONOUS TO FOWLS.—Someone writes as follows to the *British Medical Journal* :—A lady, the wife of a medical man, asked me a short time ago if I knew how much opium would kill a fowl. Wishing to kill a favourite hen which she considered in a dying state from gapes, she gave it a teaspoonful of laudanum. This, not having the desired effect, in a few hours was repeated, which resulted not in killing it curing, as the hen quite recovered a day or two afterwards.偶然ly looking over the *Medical Digest* of Dr. Neale, I came upon the article (in the index, error = 574-5 in loco 514-5) "Gapes in Fowls." It there mentions that Dr. Richardson reports that opium has little or no effect upon pigeons. It may be as well to bear this in mind when experimenting on fowls. In the treatment of gapes or ruffles (laryngismus) amongst my own stock, I have always found the application of compound tincture of ipecacuanha passed down the throat with a feather, and two or three applications, as the most effectual treatment. The disease is brought on, I consider, from overcrowding, and the want of fresh clean water.

Trade Notes.

MR. W. GIFFARD LENFESTY, of Faversham, has just opened a remarkably handsome branch pharmacy at Herne Bay.

MESSRS. MAY & BAKER, of Battersea, whose camphor refinery was stopped for a while in consequence of the fire which we reported last month, have now recommenced operations.

MESSRS. EVANS, LESCHER & EVANS announce their intention of pulling down and rebuilding their premises in Bartholomew Lane. While the operations are in progress they will occupy temporary premises in Golden Lane, E.C.

OZOKERINE.—The statement in our last that Messrs. Corbyn, Gandy & Co. were the "London" agents for the above was a printer's error. The paragraph should have stated that they are the "sole" agents for it.

MR. T. B. HILL, formerly a chemist and druggist in Victoria Street, Auckland, then of the firm of Hill & Hudson, and who for several years has turned his attention to farming in New Zealand, has now returned to Auckland, and built new premises in the centre of the city, opposite the Theatre Royal, where he has re-commenced business.

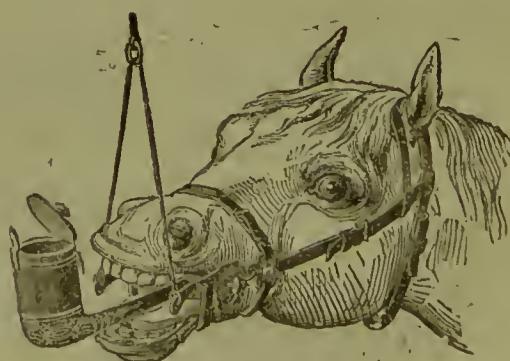
MESSRS. JOHN RICHARDSON & CO., of Leicester, have forwarded to us a new preparation of pepsine, to which they have given the title of "Peptocolos." They assert that this is superior to pepsine alone for the reason that it is a compound of that medicine with other aids to digestion, such as pancreatic, diastase, lactic and hydrochloric acids. It is highly peptic, but is only to be taken in teaspoonful doses. The proportion of the ingredients is not indicated.

THE MINERAL WATER TRADE RECORDER announces that the Annual Exhibition of Soda Water Machinery (in motion if possible), soda water bottles (patent and plain), and all other articles used in the mineral water trade, will take place late in October or early in November. Extensive premises will be engaged for the purpose. Efficient arrangements will be made on this occasion for holding the annual dinner, so that no disappointments may occur. Further particulars are to be published.

WE have received the prospectus of a Chemists' Aerated and Mineral Waters Company (Limited), with a capital of 5,000*l.* in 1*l.* shares, to be conducted on co-operative principles. The promoter, a Mr. Theodore Robert Ancell, a chemist, is to be paid for his services in promoting the company by an immediate gift of 50 fully paid up shares. He is also to be paid 200*l.* a year as managing director. He is to have further remuneration when the company succeeds. We should be inclined to recommend some such scheme as the one before us, but we should first require evidence of Mr. Ancell's qualifications, and the prospectus vouchsafes no suggestion in regard to these.

MESSRS. NEWBERRY & SONS have just issued a new edition of their catalogue, which is remarkably full and complete. It contains, including a number of advertisements, 168 quarto pages. The catalogue proper is divided into three sections, giving, in the first, prices of British proprietary articles, in the second, a list of foreign medicines, and in the third an illustrated list of druggists' sundries. Besides these, Messrs. Newberry & Sons appropriately introduce their catalogue with a fine portrait of old Dr. James, to whom they owe so much, and then add a very sensible and instructive series of notes on the introduction of medicines by means of advertising. Commenting on the various classes of journals, Messrs. Newberry & Sons are good enough to say, in reference to trade advertising:—"For this purpose we think no journal has been more increasingly appreciated during the twenty years of its publication than THE CHEMIST AND DRUGGIST. Less scientifically abstruse perhaps in character than many of its contemporaries, an examination of its pages will show how largely it is employed by proprietors for bringing before the trade information respecting their goods." We are much obliged to Messrs. Newberry for the good feeling which has prompted these remarks.

MEDICINE PIPE FOR HORSES.—The *Scientific American* illustrates a device patented in the United States for administering medicine to horses, which, as it seems to possess some ingenuity, we copy from that journal. It consists of a wooden gag-bit, which is placed in the horse's mouth and suitably attached to the head-stall. By pulling the cord shown, the gag is turned by levers, compelling the animal to open its mouth. The stem of the medicine receptacle, which looks like an exaggerated tobacco-



pipe, is then inserted in a hole in the bit and clamped therein. Then, by opening a valve in the receptacle, the medicine previously placed in the bowl runs down the horse's throat. Also in the stem is a kind of fork, which, when a pill is to be administered, holds the same until it is washed down by water poured into the bowl; whether the method could be adapted to other branches of the animal creation we will not attempt to determine. This device was patented on February 26, 1878, by Mr. Henry Hartman, of Camp Halleck, Elko County, Nevada.



[The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, Patent Agent, successor to L. de Fontaine-moreau & Co., 4 South Street, Finsbury, London; and at Paris and Brussels.]

Applications for Letters Patent:—

Albuminous Biscuits.—No. 2979.—J. Taylor, of Preston, near Brighton, Sussex. Improvements in the manufacture of albuminous biscuits. Dated July 26, 1878.

Artificial Teeth.—No. 2708.—A. E. Harris, of Mile End Road, London, surgeon dentist. An improved spring action for artificial teeth. Dated July 6, 1878.

Barrels.—No. 2750.—W. R. Lake.—A communication from A. W. Blye, of Syracuse, N.Y., United States. Improvements in barrels for holding volatile liquids. Dated June 9, 1878.

Casks, &c.—No. 2954.—W. Orchart, of Poplar, London, and R. Walpole, of Limehouse, London. A new or improved instrument or apparatus applicable to casks or other vessels in which overflow from fermentation, working, and other chemical action arises. Dated July 24, 1878.

Condensed Dietetic Article.—No. 2807.—J. H. Payne, pharmaceutical chemist, and A. Campion, manufacturing chemist, both of London. A new or improved solidified or condensed dietetic article, and for preparation thereof. Dated July 13, 1878.

Curing Cancers, &c.—No. 3005.—L. J. Dart, of Albion, Cal., United States. An improved compound and process for the cure of cancers, tumours, corns, warts, and similar excrescences. Dated July 29, 1878.

Curing Gout.—No. 2761.—G. D. Ruck, of Loughborough, Surrey. An improved compound or medicine for the cure or alleviation of gout, rheumatism, sciatica, neuralgia, and spasmodic pains. Dated July 10, 1878.

Filters.—No. 2884.—J. Bowing, of 184 Gresham House, Old Broad Street, London, manufacturing chemist. Further improvements in filter presses, founded on those described in the specification of former Letters Patent granted to me, and dated February 10, 1877. Dated July 19, 1878.

Filters.—No. 3036.—F. Wirth.—A communication from L. A. Enzinger, engineer, of Worms, Germany. Improvements in "universal quick filters." Dated July 31, 1878.

Hospital Beds.—No. 2801.—J. L. Hodgkins, of Barnes, Surrey. Improvements in beds for hospital and similar purposes. Dated July 12, 1878.

Meat-preserved.—No. 2699.—A. Hugentobler, of 43 Saint James' Road, Brixton, Surrey. Improvements in the preservation of meat. Dated July 5, 1878.

Oils, &c.—No. 2722.—L. Danckwerth and R. D. Kühler, both of St. Petersburg, Russia. Improvements in the treatment of old or decomposed caoutchouc for the production therefrom of oils, varnishes, or materials for admixture with caoutchouc and other substances. Dated July 8, 1878.

Oils.—No. 2765.—P. M. Crane and G. Moir, both of Manchester. Improvements in the manufacture of lubricating materials or oils. Dated July 10, 1878.

Preserving Foods.—No. 2897.—C. Perrot, of Boulevard Saint Denis 1, Paris, manufacturer. Improved process of preservation of sugar, meat, wine, beverages, and alimentary foods of all kinds. Dated July 20, 1878.

Purifying Chloride, &c.—No. 3008.—F. M. Lyte, of the Scientific Club, Savile Row, London. A process for the purification of commercial chloride and sulphate of zinc. Dated July 29, 1878.

Soda.—No. 3022.—A. Allhusen, of Gateshead, Durham, manufacturer. Improvements in the manufacture of soda. Dated July 30, 1878.

Soda and Potash.—No. 3079.—J. Maclear, of Glasgow, North Britain, chemist. Improvements in the manufacture of soda and potash. Dated August 3, 1878.

Stoppers.—No. 2771.—W. P. Cherry and C. E. Cherry, both of Porter Street, Hull, Yorkshire. Improvements in stoppers for bottles and similar articles, and method of closing and opening the same, and moulds for making stoppers. Dated July 10, 1878.

Stretchers, &c.—No. 2705.—A. Macleure, of 97 Queen Victoria Street, improvements in folding-legs and traverses for stretchers for sick and wounded, and for beds, couches, chairs, and other purposes. Dated July 6, 1878.

Sulphate of Ammonia.—No. 2810.—P. Spence, of Manchester, manufacturing chemist, and T. Illingworth, of Leeds, manufacturing chemist. Improvements in the manufacture of sulphate of ammonia, and in preventing nuisances arising from said manufacture. Dated July 16, 1878.

Tannic Acid.—No. 2918.—F. G. Vedova, of Smyrna, Turkey. Improvements in the manufacture and application of certain materials containing tannic acid, tannin, gallic acid, or the like, and the utilisation of certain raw products for the purpose. Dated July 24, 1878.

Letters patent have been issued for the following:—

Arsenic.—No. 519.—A. S. L. Leonhardt, of Mainkur, Germany, chemical manufacturer. An improved process and apparatus for the extraction and recovery of arsenic from the residue obtained in the manufacture of magenta colour. Dated February 8, 1878.

Dental Appliances.—No. 1833.—M. E. Tooney, of Rathbone Place. Improved means for taking impressions of the mouth for dental purposes. Dated May 7, 1878.

Disinfectants.—No. 2057.—H. L. Jones, of Brewster's Hotel, Ely Place, Holborn, civil engineer. Improvements in solid and liquid disinfectants and deodorisers. Dated May 23, 1878.

Racking Apparatus.—No. 1314.—J. Smith, of Derby, manufacturer. Improvements in racking apparatus or apparatus for filling casks and other vessels with liquids. Dated April 3, 1878.

Respirators.—No. 1831.—J. R. Chislett, of Plymouth, Devonshire. Improvements in the construction of respirators. Dated May 7, 1878.

Saccharification.—No. 647.—A. M. Clark.—A communication from E. Delarue & Co., of Paris. Improvements in the saccharification of amylaceous matter. Dated February 15, 1878.

Syrups.—No. 551.—A. Clark.—A communication from G. D. Dow, of Boston, Mass., United States. Improvements in syrups, mineral waters, and other beverages. Dated February 9, 1878.

Sulphur.—No. 500.—J. Holloway, of 7 Jeffrey's Square, London. Improvements in the production of sulphur from pyrites, and in the means employed therefor. Dated February 6, 1878.

Specifications published during the month:—

Postage 1d. each extra.

1878.

3515. S. Kemp-Welsh. Apparatus for filtering liquids. 6d.
 4550. F. Oehlecker. Dental apparatus. 6d.
 4580. M. K. G. Lieber. Manufacture of soda and potash. 2d.
 4634. T. McDonald and J. W. Lawrence. Machinery for the manufacture of oil cake. 6d.
 4635. A. M. Clark. Manufacture of bicarbonate of ammonia and soda. 6d.
 4636. J. Jeyes. Compound for preservative, antiseptic, curative, lubricating, cleasing, and similar purposes. 4d.
 4671. J. H. Johnson. Production of saccharate of lime. 2d.
 4672. J. H. Johnson. Purification and treatment of saccharate of lime, &c. 4d.
 4691. T. Minton. Liniment. 2d.
 4706. W. R. Lake. Voltaic medicated plaster. 6d.
 4725. H. Staples and T. S. Wilson. Filter presses. 6d.
 4726. H. H. Murdoch. Bag filter. 6d.
 4736. D. Johnson. Restorative and medicinal beverages. 4d.
 4765. J. W. Swan and B. S. Proctor. Purification of opium. 4d.
 4769. C. D. Abel. Treatment of hydrocarbons. 4d.
 4771. F. A. Zimmermann. Treatment of pyroxylon. 6d.
 4832. H. Simon. Process and apparatus for developing bromiue. 2d.
 4888. S. Pitt. Agglomerating chemical substances. 2d.
 4916. G. L. Miller. Orthopædic carriage bedstead for the treatment of hip disease. 2d.
 4921. J. W. Barr. Medicated and other food for dogs, &c. 4d.

1878.

12. H. Robinson and J. C. Melliss. Treatment of sewage and impure waters. 4d.
 76. J. Imray. Ice safes. 2d.

OPIUM SMUGGLING IN JAPAN.

THE Tokio *Times* reports the following case:—A dealer in drugs attempted to introduce 20 catties—that is, about 1b. weight—of opium into Yokohama, concealed in a case which was entered at the Customs as containing scurvy grass and cochineal. The Japanese discovered the opium, and prosecuted the importer in the British Consular Court for an offence against a regulation of the treaty between Japan and Great Britain, which provides that, “the importation of opium being prohibited, any British vessel coming to Japan for the purpose of trade, and having more than three catties weight of opium on board, the surplus quantity may be seized and destroyed by the Japanese authorities, and any person or persons smuggling or attempting to smuggle opium shall be liable to pay a fine of \$15 for each catty of opium so smuggled or attempted to be smuggled.” It was pleaded for the defence that the object

of the treaty was to protect Japan against opium smoking; that opium prepared for smoking is different from that used in medicine, and that the smuggled opium was medicinal. The judge, Mr. Wilkinson, accepted this plea. “Smoking opium” is, he held, one thing, medicinal opium another. The treaty, not specifying which is meant, must be interpreted according to the well-known intent of its authors. Therefore medicinal opium is not alluded to in the treaty, and on this ground the judge dismissed the case. The Society for the Suppression of the Opium Trade say that evidence was tendered in court that the difference between smoking opium and medicinal opium is in form, not in substance, and that medicinal opium could easily be prepared for the pipe. They add that the decision given is an alarming one, because, if it is confirmed, the whole value of the treaty regulation which excludes opium from Japan will be annihilated. The case has been brought to the attention of the Marquis of Salisbury by the Society, and his lordship has replied that Her Majesty’s Minister in Japan will be instructed to report on the subject.

EXCHANGE COLUMN.

TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the advertisement by the Publisher of THE CHEMIST AND DRUGGIST, and all correspondence relating to it must be addressed to the “Publisher of THE CHEMIST AND DRUGGIST, Colonial Buildings, Cannon Street, London, E.C.,” the envelope to be endorsed also with the number. The publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

FOR DISPOSAL.

Student’s spectroscope, 30s.; materials for pair of telephones, 10s. R. Aekroyd, care of Mr. Thresh, Buxton.

Show-case, 3 feet 2 inches long, otherwise similar to Maw’s fig. 23, page 150, with carving, for 7l. 10s. Hebden, Chemist, Halifax.

Pharmaceutical Journal, vols. 1 to 8, third series, unbound. Coates, 10 Brougham Street, Edinburgh.

No. 1 piping-press (Pindar’s) for 5-grain pills; in good condition; price 30s. Robson, Chemist, Grimsby.

Minature press and root cutters, cheap; 17s. root cutters, 5s. 6d. M.M., 28 John Street, Bedford Row, W.C.

Smith’s “Pharmaceutical Guide,” 3s. 6d. Having passed Preliminary, sell my books for 7s. Particulars, “Student,” care of Mr. Judd, 43 Great Coram Street, W.C.

Pharmaceutical Journal, unbound, vols. 13 to 18, and 1, 2, 3, and 11, second series, 11. Five pairs Clendon forceps, 10s. Hewitt, Eastgate, Rochester.

Heavy silver lever watch, 30s., *Science Gossip*, Illustrated (botany, natural history, &c.), 18 numbers, 3s. 6d. Medicus, Newferry, Birkenhead.

Fittings of a chemist’s shop, open nine months, and York Glass Company’s bottles, &c., perfect condition, cheap. Clarkson, West Hartlepool.

Soda-water stand, as Maw’s fig. 62, good condition, 2l. 2s.; pill machine, to make 18 pills, 5 grains. “Chemist,” 119 Hammerton Road, W.

Quantity tongs—small, 3s. 6d.; medium, 6s. 6d. large, 12s. gross. Padwick, Red Hill.

Show-jar, Maw’s fig. 19; insect powder, fresh ground, 1½ bales; 14 lbs., 1s. 1b.; quantity less price. Offer wanted for the lot. Lockwood, Chemist, Sheffield.

Materia medica cabinet, of 150 specimens, each in separate box, and 80 indigenous plants, mounted and named, 5s. the two. Tully, Chemist, Tunbridge Wells.

Petroleum cistern, new 18 months ago, galvanised iron brass tap, and false wood bottom, holds over 100 gallons, price 37. 10s. J. Hill, Wингate, via Ferryhill.

To be sold separately, or together, all the books (11) required for preliminary examination of College of Surgeons, with questions, price 14s. Griffith Williams, Callington, Cornwall.

27 vols. *Pharmaceutical Journal*, from 1841 to 1868, half-bound, in excellent condition, with index to first 15 vols.; offer wanted. Edward Wood, Bromfeld Road, Gander Road, Clapham.

28 new white porcelain ointment, &c., jars, with gold burnt-in lines and shield labels, capacity 36 ozs., height 7 inches; 14 1-lb. pink jars, domed lids, with burnished gold labels; also, 2 curved counter easels, mirrors in backs, velvet lined trays, size 42 inches, 19 inches, 8 inches. J. S., 311 Goswell Road, E.C.

For sale.—Nest drawers, gold labels, black knobs, fig. 182, Maw’s; 48 20-oz. stoppered bottles, 36 8-oz. stoppered, 12 20-oz. syrup bottles, 24 8-oz. blue jars, 12 16-oz. blue jars, all with gold labels, in good condition; 4 grain pill machine, 1-quart miniture press. Samuel Biggin, Yorkley, Lydney.

Edwards’ apparatus for administering and economising nitrous oxide gas; also 50-gallon iron gas-bottle; will sell separately if required. W. Dougan, Dentist, 172 Oxford Street, Manchester.

Dentists’ vulcaiser, thermometer and flasks, Childs’ patent, Asl’s make, in perfect condition, 50s.; dentists’ work-bench, with 2½-inch hard wood top, metal drawers, &c., 15s. Dougan, 172 Oxford Street, Manchester.

The entire fittings of a druggist’s shop, including wide and narrow mouth bottles, counter and wall cases, earboys, jars, two nests of excellent mahogany-fronted oak drawers, Avery’s weighing machine, counter scales, &c., to be sold cheap. Kay, Chemist, Crewe.

Second-hand fittings for a druggist’s shop, as follows, cut to fit, and done up equal to new:—110 drawers, glass handles; 270 bottles and jars, all new labelled; shelves, counters, window fittings, counter, scales, and weights, apothecaries’ scales; counter machine, 56 lbs.; 5 mortars, 1 iron mortar, pallettes, pill machine, sieve, specie jar, 2 globes, 5-foot dispensing screen, mahogany case and desk, 6-foot flat counter case, and 200 lots of drugs; for the lot 52l. 10s. Materials to fit up one or two small shops, cheap, on hand. A 6-foot mahogany wall case, 6l. 5s.; write for lists. 6½-foot counter screen, 83 inches high, mirror centre, and mirror backs, handsome tablet, all plate glass. Dispensing screens with handsome tablets, 5-foot, 60s.; 4½-foot, 50s.; mahogany case and desk, 50s.; pine wall case, newly painted mahogany, 8 and 9 feet high, 45s.; with mahogany doors, 60s. R. Tomlinson, Shop Fitter and Valuer, 15 St. Paul’s, Birmingham.

Eleven pair dental forceps, with key and elevator, very little used; 12 sealing and stopping instruments, with mirror and case, best make. Cash offers? Worth, Chemist' Bournemouth.

A bargain.—Nests of drawers, shelving, window fittings, wall glass case, counter case, desk with glass case, specie jars, carboys, cylinders, and about 31 dozen bottles and pots, and an iron safe. Can be viewed at Messrs. Bird & Storey's, 17 Great Portland Street, Oxford Street, London.

A quantity of shop bottles, drawers, shelving, counter cases, sponge cases, wall cases, carboys, specie jars, also every requisite for a chemist's shop, to be sold cheap, to effect a clearance prior to removing to more extensive premises, 207 Old Street. E. Natali, 213 Old Street.

Minor Students.—50 questions asked of a successful candidate at last Minor, 2s.; 30 prescriptions given to dispense at the Minor, 2s.; 50 illegible prescriptions, 2s. 6d.; 80 mounted indigenous plants, 5s.; Tully's "Postal System" lent to copy, 5s. "Chemist," care of Mr. Edwards, London House, Petham, Canterbury.

To be sold, a portable galvanic machine (Dr. Stohrer's, Dresden), in perfect condition, and almost as good as new, 30-cell power, and size about 2 feet; customer parting with it merely because he has no longer any need for it. Address, where it may be viewed on application, to Wilson, Chemist, Reading.

Nest of drawers, window enclosures, glazed cases, shop jars, all sizes and colours, show bottles, specie jars, black store bottles, shelving, and every requisite; also various medical books, surgical instruments; also to pharmacists' handsome show cases, jars, &c.; all cheap, to effect a clearance. Handsome vase of satin flowers, price 3*l*. H. E., 294 Old Kent Road.

Fresh botanical specimens, each named and fully described (send stamp for list), 5s. per set, separately 6d. each; re-agent labels, showing equations, formulae, and other useful information, 1s. 6d. per set; 50 questions asked at July Minor (London or Edinburgh), 2s.; 30 prescriptions (catch and difficult) given to dispense at Minor during past twelve months, with modus operandi, 2s. Saunders, Private Tutor, &c., 79 Gaisford Street, N.W.

A 5-ft. plate-glass counter case, as fig. 105, 5*l*.; a 6-ft. 6 in., as fig. 100, 6*l*.; a 6-ft. as fig. 99, Maw's catalogue, 6*l*.; a 4-ft., as fig. 100, 75*s*.; a 4-ft. as fig. 101, 90*s*.; a 5-ft. 8-in., as fig. 41, 6*l*.; all plate-glass and equal to new; sponge case, 92, 5*l*.; desk and case, fig. 21, 65*s*.; a ditto ditto, as fig. 39. 3 feet long, 5*l*.; a 7-ft. 2-in. wall-case, plate-glass, as fig. 200, 12*l*.; mahogany-top cupboards, counters, scales, pill-machines, mortars, ointment jars, carboys, 6-gall., at 17*s*. 6*d*. each, cut stoppers and stands. E. Natali, 213 Old Street, E.C.

shop jars, 50 Wedgwood mortars, 10 pill machines, fancy jars, 7 specie jars 27 in. high, royal arms glass, gold covers, equal to new, 90*s*. pair; several other pairs from 50*s*.; jujube jars, labelled, 2*s*. each; scales, fig. 1. 25*s*.; fig. 7, 15*s*.; fig. 4, 15*s*.; 1 each nest of mahogany drawers, glass knobs, and newly labelled, 4 ft., 65*s*.; 8-ft. do. do. to match, 6*l*. 10*s*.; 12-ft. do. do., 9*l*. 10*s*.; a nest drawers, mahogany fronted, 96 in. long, a do. do. 48 in. long, lockers included, 1s. 9*d*. per drawer; 11-ft. 9 run of drawers and cupboards, pine-painted oak, gold labelled, 6*l*. the lot; 1 each mahogany-top counter, 6 ft., 7 ft. 6 in., 9 ft. long; 12-ft. counter, with glass case on top, 9 ft. high; a 4-ft. 9 dispensing counter, with screen on top. E. Natali, 213 Old Street, E.C.

Chinoquinine: 50 ozs. for disposal, in 1-oz. bottles; price 4*s*. 9*d*. net. Address, C. P., Christopher Hotel, Bath.

White gallipots, 2*l*. oz., 1*l*. oz., and 1-oz., 2*s*. 6*d*. per gross, or what offers? Myers' cattle spice, 10 per cent. from lowest wholesale price; oak-varnish, really good, 6*s*. 6*d*. gal.; fine Brunswick black, 4*s*. 6*d*.; burnt sugar, first-class, 30*s*. cwt.; pulv. Capc uloes, 3 cwt. at 6*l*.; American farm lanterns for paraffin or sweet oil, 18*s*. doz.; 5*l*. w. creta precip., 20*s*. cwt.; blue vitriol, 2*l*.; packed Epsons, 1-oz. and 2-oz., 13*s*. cwt.; 10 gross first-class brass wind-up benzoline lamps, new, 3*s*. 6*d*. dez. B. Newham & Co., Castle Hill, Sheffield.

Sponge case, as figs. 90 and 92; a 5 ft. 6 in. plate-glass counter case, as fig. 99, 6*l*.; a 5 ft. 9 in., as fig. 96, 5*l*.; a 4 ft., as 101, 80*s*.; a 3 ft. 6 in., as fig. 100, 75*s*.; a 6 ft., as 105, 6*l*. 10*s*.; a 5 ft., as 105, 5*l*.; several others, larger and smaller; a 7 ft. dispensing screen, glass case at each side, with looking-glass centre, with marble slab in front, silvered glass backs to cases, and shifting shelves inside, fretwork on tablets on top shelves at back for dispensing bottles, all plate glass, in first-rate condition, 8*l*. 10*s*.; a 6 ft. do. do., 8*l*. 10*s*.; a 6 ft., as 164, 6*l*. 10*s*.; a 3 ft., as 163, 60*s*.; desk and case, as fig. 21, 65*s*.; a desk on stand, with label drawer and paper drawer under, in first-class condition, a bargain; 168 ft. run of mahogany-fronted shelves, 7*d*. per foot, &c., &c. E. Natali, 213 Old Street, E.C.

Southall's Materia Medica cabinet, cost 32*s*. 6*d*. (with lock and key), good condition, only 15*s*. 6*d*.; Muter's "Materia Medica," cost 6*s*. 6*d*.; 3*s*. 6*d*.; Wills's "Pharmacy," cost 6*s*. 6*d*.; 3*s*. 6*d*.; "Metric System," 9*d*.; "Materia Medica," coloured plates, cost 8*s*. 6*d*.; 5*s*.; Barber's "Pocket Pharmacopoeia," cost 4*s*. 2*s*. 3*d*.; "Synopsis to B.P.," 7*s*. 6*d*.; Smit's "Guide to Minor," cost 6*s*. 6*d*.; 3*s*. 9*d*.; Balfour's "Botany," 9*d*.; Cook's, 9*d*.; Bentley's, 9*d*.; "Selecta e Preceptis," new, 3*s*. 3*d*.; valuable Manuscript Notes on Chemistry, 5*s*.; Dr. Chapman's spinal ice bag (new), wholesale price 17*s*. 6*d*., take 10*s*.; rare bargains; twenty prescriptions (catch ones) given at the last three examinations, 9*d*. free; Manuscript Notes on Pharmacy, 5*s*.; clean and good condition. "Pharmacists," 4 Harbour Street, Folkestone.

5*l*.-ft. 4*l*.-ft. plate-glass counter cases, as fig. 99 and 101, 6*l*.; 4*l*. 10*s*.; 4*l*.-ft., 6*l*.-ft., as 100 and 103, 85*s*.; 8*l*. 10*s*.; 7*l*.-ft., as fig. 105, 12*l*. 10*s*.; sponge cases, as 90 and 92, 80*s*.; 6*l*. 10*s*.; handsome plate-glass dispensing screens, 6 ft., 6 ft. 6, 7 ft. long, glass case at each side and mirror in centre, 7*l*. 10*s*.; 8*l*. 10*s*.; 4 bent-glass ebonyed counter cases, similar to Maw's, fig. 81, doors open at back, 16 in. long, 10 in. wide, 3*l*. in. deep, equal to new, price 10*s*. each; 4 bent top glass shade cases, as fig. 81, 14 in. long, 10 in. wide, 3*l*. in. deep, ebonyed, equal to new, 8*s*. 6*d*. each; 5 upright counter cases, all sizes; 4 upright counter cases, with desks; quantity mahogany wall cases, with and without cupboards under; 13 nests mahogany-fronted gold-labelled shop drawers, all sizes; 11 mahogany top counters; 5 nests deal-fronted gold-labelled shop drawers; 3 mahogany desks, with ground-glass screen; 3,600 gold-labelled shop bottles, all sizes; 150 block-glass stock bottles; 1,400 gold-labelled ointment and ext. jars, all sizes; mahogany shop chair, equal to new, 16*s*.; 3 pill machines; quantity counter and warehouse scales; quantity iron, marble, composition mortars and pestles; 4 shop lamps, and every description of utensils and fittings required by the trade. Lloyd Rayner, 333 Kingsland Road, London, N.

Chapman's entire wheat flour. About 5*l*. worth, (wholesale), fresh from vendors. What offers? E. G., 49 Mincing Street, London, E.C.

Wholesale Druggist's Stock for Disposal.—2 cwt. rad. rhei, E.I.; 2 cwt. p. rhei., E.I.; 6 cwt. fol. sennae tin.; 1 cwt. rad. gent.; 1 cwt. p. myrrh. tunc.; 5 cwt. pulv. glycyrrh.; 1 cwt. p. diaxente; 1 cwt. p. foenugree co.; 1 cwt. p. cureum. co.; 4 cwt. mcl. jam.; 1 cwt. lichen island; 3 cwt. ol. ricini opt.; 1 cwt. p. cassie; 20 lbs. vanilla; 10 lbs. p. gum. opii. tunc. opt.; 4 lbs. morph. mur. and acet.; 28 lbs. cort. cinchon. pall.; 20 lbs. p. cinchon. pall.; 30 lbs. rad. ipecac.; 20 lbs. p. ipecac.; 28 lbs. magn. carb., pond Howard's; 2 cwt. pulv. cubebæ; including extracts, essential oils, and numerous other drugs and chemicals. Lloyd Rayner, 333 Kingsland Road, London, N.

FORMULÆ.

Moth powder, a certain remedy. Recipe, 1*s*. 3*l*. 193 B.

An excellent liquid dentifrice, cleans the teeth, strengthens the gums, purifies the breath. Recipe, 2*s*. 6*d*. 3*l*. 193 A.

Fly papers and block, and quire of paper to print your own, with recipe for poison, for 2*s*.; sample by post. Marshall, Accrington.

Formula for lime cream, absolutely inseparable. 30 stamps. "Chemicus," 18 Gladstone Street, Moss Side, Manchester.

A certain cure for blemishes on horses' knees, shoulders, &c.; never fails; used by our largest circus proprietors. Recipe, 2*s*. 3*l*. 193 C.

Furniture paste, very superior, cleans and puts a brilliant gloss on polished or other furniture, &c., 2*s*. 6*d*.; baking powder (original), worth 10*s*. 2*s*. 6*d*. The excellence of these preparations secures for them a good sale. Reference or sample post free. H. Hare, 8 South Street, Goole.

WANTED.

Petroleum cistern and pump. Kay, Chemist, Crewe.

Pharmaceutical Journal, September, 1868. Hewitt, Eastgate, Rochester.

Pharmaceutical Journal, vols. i. to xi.; first series. Contes, 10 Brougham Street, Edinburgh.

Britten's "Dispensers' Vade Mecum." Stat. price. 58 Stafford Street, Walsall.

A soda-water stand, fig. 19 or 62 Maw's List. McIlwaine & Marshall, Newry, Ireland.

Gray's "Anatomy." Kirke's "Physiology." Tonne's "Dental Surgery." W. Dongan, 172 Oxford Street, Manchester.

A chemist's lamp, with lenses; also two specie jars, about 2 feet high; all in good condition. Wright, Chemist, Leamington.

Gold-labelled shop bottles and pots, marble mortar, large iron mortar, warehouse scale. Chemist, 34 High Street, Putney.

Cistern, from 100 to 120 gallons, square shape preferred, suitable for benzoline, must be perfect; state price and all particulars. A. B., care of Wm. Newell, Post Office, Brentwood.

A 5-gallon copper cylinder for soda-water machines, Dow's Clark's principle; second-hand patent bottling machine, from mortar about 3 pints; book on analysis water, &c. glass tube for percolator. Williams, Long Street, Poole.

ADDRESS WANTED.

The address of Dr. De Tomanzio, late of Londonderry. 3*l*. 193.



THE Board of Trade returns for July prove that it is yet too early to realize that improvement in our export trade has already been so freely discounted. It appears that declared value of our national exports last month was £100,857., against 17,587,301. in July last year, showing a diminution of 1,186,444. During the first seven months of present year the declared value was 1,760,174. less than in same period last year, and 4,233,389. less than in 1876, shown by the following totals:—Seven months ended July, 1878, 111,061,257.; 1877, 112,821,431.; 1876, 115,294,646. The chemical markets are distinctly better. The production of st of our heavy materials has been gradually reduced, and has at last coincided with an improvement in the demand. This improvement should continue and develop it will yet be w to influence prices to any great extent, as every advance in m will tend to bring into use some of the old plant and new nt also.

Soda crystals are quoted 10s. to 15s. higher than last month, certain brands of ash are also only to be bought at an advance. Gaching powder is firm, and in some quarters has been sold higher rates. No forward contracts are accepted at present. The price of bichromate of potash has been considerably raised by a combination of the Scotch manufacturers. Cream of tartar has steadily risen, and has been freely bought a large extent on speculation, as it is expected the supply foreign argols will be exhausted before the next wine p. Citric is also slightly higher again; tartaric is firm. Mphor is still going up, and refiners have advanced their stations to 1s. 4½d. Quinine has been kept up in price for while by a scarcity in the foreign markets owing to Government purchases; as these did not seem likely to continue long n a war footing," the price rapidly approached a normal re. British was quoted at 10s., and French at 9s. But hin the last three days large purchases have been made for eign governments by speculators, which have increased the ce 2s. for British and 2s. 6d. for foreign. The market is now ry firm.

At the drug sales of last week buying was fairly active, though there are not yet many indications of renewed liveliness. Ium was somewhat stronger, perhaps to the extent of 6d. or per ton. A good bit of castor oil was put on the market to l without reserve, and this had the effect of slightly reducing quotations. A few of the American houses who prepare this product are adopting these sales as a means of advertising their mes in connection with castor oil. One lot of 100 cases, scribed as Collier & Co.'s, made 5d., but another lot of cases, with Baker's label, was held for 5½d. Musk of fine lity was bought eagerly at extreme prices, some making 59s. to of roses, on the other hand, is declining almost as rapidly as advanced. Camomile flowers were bought in at 82s. 6d. Barks ve been held by importers, but buyers require a larger reduc- than the former are willing to allow. Copaiba balsam d at 1s. 4d. for bright Para and 1s. 5½d. and 1s. 6d. for ranham. Ten baskets of Para roll annatto sold at 10d. ina cantharides made 1s. 9d. and 1s. 10d. Two cases of od Aleppy cardamoms, a little mixed with rather dark, sold 6s. 1d. and 6s. 6d. Ten bales of Turkish coloeynth were ight in at 1s. 9d. Ergot of rye sold at 6d. to 9½d. Some inner grains came on the market after a rather long absence, d a few bags were sold at 30s. Sarsaparilla was in rather ore abundant stock than the demand justified, and is consequently somewhat lower. Honey has been inquired after, and

reports as to the new crop are not generally favourable. It is greatly to be regretted that the cultivation of this product is not more encouraged in our country districts, where, as a simple statistical fact, the flowers, and especially the clover fields, are allowed to waste many thousands of pounds' worth of sweetness on the unremunerative air.

The new crop of opium is declared to be between 4,500 and 5,000 chests. There is no doubt a large quantity in the hands of dealers from last year's supply, which was most exceptionally large, nearly three times the amount of the present crop. Prices are said to be very firm in Smyrna, but they always are so reported when the new crop first comes in, and the advance established is very slight. Holders have been trying to force the price up all the summer by reports of bad crops, but they have not yet succeeded to any great extent. The price during the forthcoming year will depend mainly on the quantity of previously-bought stocks which may now be brought forward.

Isinglass has sold generally at a reduction of about 2d. and 3d. per lb. Russian, however, is 1s. to 2s. cheaper.

Rhubarb has sold in favour of buyers, but for good qualities of senna an average improvement of 1d. per lb. has been established. Buchu leaves have been more abundantly offered, and prices have given way. Cubebes are held firmly. Cape aloes are rather lower; and the recent acquirement by Great Britain of the island of Socotra may have some influence on the production of the best kinds of aloes, a regular supply of which is much required.

In the oil market olive has been firmer, although the demand remains very languid. Holders have great confidence in an advance. Cocoanut oil has become much dearer, Ceylon being now quoted at 6d. higher than a month ago. Buyers decline to purchase sperm oil at the prices required, and seal has also yielded. Linseed and rape oils are just now quiet, but both are stronger than they were last month. American turpentine shows a tendency to advance, and petroleum is steady at previous rates.

Canary seed has sold at 56s., and the same price has since been refused for it. Calcutta linseed has made from 50s. to 50s. 9d. Bombay has sold at 50s. 6d., Odessa at 49s., and Azov at 50s. 6d.

Shellac is dull, but moderately firm. The reports from India suggest higher rather than falling prices.

FLAVOURED TOBACCO.—Although the art of smuggling is on the decline, incidents recalling its palmy days still occur on certain frontiers. The Custom-house officers at Neuville-aux-Joutes, on the Belgian frontier, lately discovered a remarkable development of the formerly well-known "mortuary" style of smuggling. A waggoner having applied for a pass for his horse, the revenue officers proceeded to examine the animal in order to comply with the regulations which necessitate taking down a description of all horses allowed to pass the Custom-house gate. While performing this duty their noses were assailed with a most offensive odour arising apparently from the contents of the waggon. The driver, on being asked for an explanation, stated that the disagreeable smell proceeded from the carcasses of two dead horses, which were the only contents of the vehicle. The officials, imagining that, in addition to the almost overpowering effluvium of the remains of the deceased animals, they smelt the proverbial "rat," insisted on a rigid investigation of the matter. Their courage and curiosity were rewarded by discovering that the dead horses were literally stuffed with tobacco to the amount of 175 kilogrammes. The affair has created some sensation in the district, and a gloom has fallen over the local purchasers of cheap tobacco, who have, or fancy they have, for some time past detected a "horsey" flavour in their pipes!—*Pall-Mall Gazette*.

Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mining Land for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

CHEMICALS.

1878.

1877.

ACIDS—	s.	d.	s.	d.	s.	d.	s.	d.
Acetic	per lb.	0	2 ¹	to	0	0	0	3 ¹
Citric	2	5	..	0	0	2	7 ¹	..
Hydrochlor.....	per cwt.	5	0	..	7	0	4	0
Nitric	per lb.	0	4 ¹	..	0	0	0	4 ¹
Oxalic	0	4 ¹	..	0	5	0	0	0
Sulphuric	0	0 ¹	..	0	1	0	0	0
Tartaric crystal..	1	5 ¹	..	1	6	1	5 ¹	..
powdered	1	6	..	0	0	0	0	0
ANTIMONY ore	per ton	240	0	..	300	0	240	0
crude	per cwt.	37	0	..	0	0	37	0
star.....	49	0	..	49	10	47	0	48
ARSENIC, lump	26	0	..	0	0	26	0	0
powder	8	9	..	0	0	9	6	10
BRIMSTONE, rough	per ton	110	0	..	115	0	110	0
roll	per cwt.	9	0	..	0	0	9	6
flour.....	11	6	..	13	0	11	9	13
IODINE, dry	per oz.	1	0	..	0	0	0	9 ¹
IVORY BLACK, dry	per cwt.	8	6	..	0	0	8	6
MAGNESIA, calcined	per lb.	1	10	..	0	0	1	10
MERCURY	per bottle	140	0	..	0	0	185	0
MINIUM, red	per cwt.	18	6	..	19	0	22	6
orange	29	0	..	0	0	33	0	0
PRECIPITATE, red	per lb.	3	5	..	0	0	4	2
white	3	4	..	0	0	4	1	0
PRUSSIAN BLUE	0	0	..	0	0	0	0	0
SALTS—								
Alum	per ton	125	0	..	130	0	145	0
powder	145	0	..	0	0	157	6	160
Ammonia:								
Carbonate	per lb.	0	6 ¹	..	0	6 ¹	0	5 ¹
Hydrochlorate, crude,								
white	per ton	600	0	..	720	0	670	0
British (see Sal Am.)								
Sulphate	per ton	415	0	..	425	0	410	0
Argol, Cape	per cwt.	75	0	..	82	0	75	0
Red.....	52	0	..	70	0	67	0	73
Oporto, red	32	6	..	33	0	33	0	34
Sicily	60	0	..	65	0	0	0	0
Ashes (see Potash and Soda)								
Bleaching powd.	per cwt.	6	0	..	0	0	6	3
Borax, crude.....	26	0	..	30	0	27	0	38
British refnd.	35	0	..	0	0	40	0	0
Calomel	per lb.	3	0	..	0	0	3	9
Copper:								
Sulphate	per cwt.	18	6	..	18	9	21	6
Copperas, green	per ton	50	0	..	55	0	55	0
Corrosive Sublimate p. lb.	2	5	..	0	0	3	2	0
Cr. Tartar, French, p. cwt.	107	0	..	0	0	100	0	101
brown	84	0	..	85	0	90	0	0
Epsom Salts	per cwt.	4	3	..	6	0	4	3
Glauber Salts	3	0	..	4	6	3	6	4
Lime:								
Acetate, white, per cwt.	11	0	..	20	0	11	0	20
Magnesia: Carbonate	47	6	..	0	0	47	6	0
Potash:								
Bichromate	per lb.	0	5	..	0	5 ¹	0	3 ¹
Carbonate:								
Potashes, Canada, 1st								
sort	per cwt.	22	0	..	22	6	24	0
Pearlashes, Canada, 1st								
sort	per cwt.	32	0	..	33	0	34	0
Chlorate	per lb.	0	6 ¹	..	0	7	0	8 ¹
Prussiate	0	10	..	0	10 ¹	0	11	0
red	1	8	..	1	9	2	1	2
Tartrate (see Argol and Cream of Tartar)								
Potassium:								
Bromide	2	6	..	0	0	0	0	0
Chloride	6	6	..	0	0	0	0	0
Iodide	per lb.	15	0	..	15	6	13	0
Quinine:								
Sulphate, British, in								
bottles	per oz.	12	0	..	0	0	13	6
Sulphate, French	11	6	..	0	0	12	6	0
Sal Acetos	per lb.	0	6 ¹	..	0	7	0	7 ¹
Sal Ammoniac, Brit. cwt.	42	0	..	43	0	44	0	45
Eau de Cologne:								
Bengal, 6 per cent, or								
under	per cwt.	19	6	..	19	9	22	9
Bengal, over 6 per cent.								
per cwt.	18	3	..	19	6	22	0	23
British, refined	24	6	..	25	9	26	0	27
Soda: Bicarbonate, p. cwt.	10	3	..	0	0	10	9	11
Carbonate:								
Soda Ash	per deg.	0	1 ¹	..	0	0	0	1 ¹
Soda Crystals per ton	75	0	..	77	6	85	0	0
Hyposulphite, per owt.	0	0	..	0	0	0	0	0
Nitrate	15	0	..	15	6	14	6	15
SUGAR OF LEAD, Whitcwt.	38	0	..	0	0	37	0	38
Brown, cwt.	26	6	..	0	0	27	0	0
SULPHUR (see Brimstone)								

1878.					1877.				
VERDIGRIS	per lb.	1	1	to	1	5	1	1	to
VERMILION, English	2	8	..	0	0	3	6	..	0
China	2	6	..	0	0	2	9	..	0
DRUGS.									
ALOES, Hepatic	per cwt.	80	0	..	160	0	70	0	..
Socotrine	"	90	0	..	200	0	85	0	..
Cape, good	"	45	0	..	50	0	53	0	..
Inferlor	"	43	0	..	47	0	47	0	..
Barbadoes	"	60	0	..	140	0	50	0	..
AMBENONIS, grey	oz.	70	0	..	85	0	75	0	..
BALSAM—									
Canada	per lb	0	0	..	0	0	1	1	..
Capivi	"	1	4	..	1	6	1	5	..
Peru	"	0	0	..	0	0	5	0	..
Toin	"	3	6	..	3	9	6	0	..
BARKS—									
Canella alba	per cwt.	0	0	..	0	0	21	0	..
Cascarilla	"	17	0	..	23	0	15	0	..
Peru, crown & grey	lb.	1	6	..	3	0	1	6	..
Calisaya, flat	"	2	6	..	4	6	1	3	..
Carthagona	"	4	0	..	8	0	2	0	..
Columbian	"	1	6	..	6	0	1	6	..
E. I.	"	0	0	..	0	0	1	6	..
good & fine	"	0	0	..	0	0	4	6	..
Pitayo	"	0	6	..	2	6	0	6	..
Red	"	3	0	..	8	0	2	3	..
Buchu Leaves	"	0	2 ¹	..	1	3	0	2 ¹	..
CAMPHOR, Chinu	per cwt.	85	0	..	87	6	92	6	..
Japan	"	90	0	..	92	6	97	6	..
Refin. Eng. per lb.	"	1	4 ¹	..	0	0	1	3	..
CANTHARIDES	"	1	9	..	4	6	2	9	..
CHAMOMILE FLOWERS p. cwt.	60	0	..	80	0	50	0	..	200
CASTOREUM	per lb.	9	0	..	30	0	9	0	..
DRAGON'S BLOOD, Ip. p. cwt.	137	6	..	240	0	100	0	..	260
FRUITS AND SEEDS (see also Seeds and Spices).									
Anise, China Star per cwt.	80	0	..	90	0	92	0	..	100
Spanish, &c.	30	0	..	40	0	39	0	..	35
Beans, Tonquin	3	9	..	5	9	1	9	..	2
Cardamoms, Malabar									
good	"	6	0	..	6	6	5	0	..
inferior	"	2	0	..	5	10	1	6	..
Aleppy	"	2	0	..	6	6	3	2	..
Madras	"	2	8	..	4	6	2	2	..
Ceylon	"	3	0	..	4	3	3	0	..
Cassia Fistula	per cwt.	0	0	..	0	0	10	0	..
Castor Seeds	"	0	0	..	0	0	0	0	..
Cocculus Iudicus	"	7	9	..	10	0	9	0	..
Coccygynia, apple	per lb.	1	9	..	1	9	0	0	..
Croton Seeds	per cwt.	28	0	..	32	0	30	0	..
Cubeb	"	32	0	..	0	0	27	0	..
Cummin	"	20	0	..	35	0	10	0	..
Dividivi	"	1	0	..	16	0	12	6	..
Fenugreek	"	6	0	..	12	0	8	0	..
Guinea Grains	"	28	6	..	30	0	0	0	..
Juniper Berries	"	3	3	..	6	0	8	0	..
Nux Vomica	"	8	0	..	10	0	11	0	..
Tamarinds, East India	"	12	0	..	19	0	11	0	..
West India	"	20	6	..	25	0	17	0	..
Vanilla, large	per lb.	17	0	..	23	0	16	0	..
inferior	"	12	0	..	16	6	11	0	..
GINGER, Preserved, per lb.	"	0	5 ¹	..	0	6	0	4 ¹	..
HONEY, Chili	per cwt.	30	0	..	50	0	32	0	..
Jamaica	"	35	0	..	45	0	30	0	..
Australian	"	0	0	..	0	0	0	0	..
IPPECACUANHA	per lb.	4	6	..	5	0	4	10	..
ISINGLASS, Brazil	"	2	4	..	5	0	3	0	..
Tonguo sort	"	3	4	..	5	7	3	6	..
East India	"	1	4	..	4	10	2	2	..
West India	"	3	8	..	4	6	4	1	..
Russ. long staple	"	6	0	..	14	0	8	0	..
" inferior	"	0	0	..	0	0	0	0	..
Simovia	"	1	6	..	3	0	2	2	..
JALAP, good	"	0	10	..	0	11	0	8	..
infer. & stems	"	0	8	..	0	9	0	7	..
LEMON JUICE	per degree	0	1	..	0	1 ¹	0	1	..
LIME JUICE	per gall.	1	7	..	1	9	0	0	..
LIQUORICE, Spanish per cwt.	0	0	..						

1878.

1877.

	s. d.	s. d.	s. d.	s. d.
Essential Oils, continued:—				
Neroli	per oz. 3 0	to 6 6	3 0	to 6 6
Nutmeg	" 0 3	.. 0 4	0 5	.. 0 5
Orange.....	" per lb. 4 3	.. 7 0	6 0	.. 9 0
Otto of Roses.....	per oz. 22 0	.. 40 0	16 0	.. 42 0
Patchouli	" 1 6	.. 3 0	1 9	.. 3 0
Peppermint:				
American	per lb. 10 9	.. 12 6	13 0	.. 14 3
English	" 24 0	.. 25 0	34 0	.. 35 0
Rosemary	" 2 9	.. 2 6	2 0	.. 2 6
Sassafras	" 1 9	.. 2 0	2 3	.. 2 6
Spearmint	" 12 0	.. 15 0	12 0	.. 15 0
Thyme.....	" 0 0	.. 0 0	0 0	.. 0 0
Mace, expressed	per oz. 0 6	.. 10 0	0 6	.. 10 0
RUM, Turkey.....	per lb. 15 6	.. 18 0	21 0	.. 22 6
inferior	" 13 0	.. 15 6	10 0	.. 18 0
ASSIA (bitterwood) per ton	100 0	.. 130 0	100 0	.. 130 0
BARB, China, good and fine	per lb. 1 6	.. 4 0	3 0	.. 3 6
Mid. to ord.	" 0 8	.. 1 4	0 9	.. 2 8
Dutch Trimmed	" 0 0	.. 0 0	0 0	.. 0 0
OTS—Calumba	per cwt. 20 0	.. 40 0	28 0	.. 34 0
China	" 0 0	.. 0 0	30 0	.. 32 0
Chiretta	per lb. 0 3	.. 0 4	0 0	.. 0 0
Galangal	per cwt. 22 6	.. 23 0	24 0	.. 26 0
Gentian	" 20 0	.. 21 0	22 0	.. 24 0
Hellebore	" 0 0	.. 0 0	0 0	.. 0 0
Orris	" 55 0	.. 65 0	26 0	.. 75 0
Pellitory	" 70 0	.. 76 0	70 0	.. 76 0
Pink	per lb. 0 0	.. 0 0	0 0	.. 0 0
Rhatany	" 0 3	.. 0 6	0 4	.. 1 0
Seneka	" 2 8	.. 2 10	3 6	.. 4 0
Snake	" 0 10	.. 1 0	0 6	.. 0 6
FFRON, Spanish	20 0	.. 40 0	33 0	.. 37 0
LEP	per cwt. 240 0	.. 300 0	0 0	.. 0 0
RSAPARILLA, Lima per lb.	0 5	.. 0 6	0 5	.. 0 7
Guayaquil	" 2 2	.. 2 6	1 10	.. 2 2
Honduras	" 0 11	.. 1 2	0 11	.. 1 4
Jamaica	" 1 3	.. 1 8	1 3	.. 2 9
ASSAFRAS	per cwt. 9 0	.. 11 0	0 0	.. 0 0
CAMMONY, Virgin	per lb. 0 0	.. 0 0	24 0	.. 30 0
second & ordinary	" 0 0	.. 0 0	6 0	.. 22 0
ENNA, Bombay	" 0 0	.. 0 0	0 1	.. 0 4
Tinnivelly	" 0 12	.. 1 3	0 12	.. 1 6
Alexandria	" 0 5	.. 1 6	0 5	.. 2 0
PERMACETI, refined	" 1 4	.. 0 0	1 3	.. 1 4
American	" 1 2	.. 0 0	1 0	.. 1 1
QUILLS	" 0 3	.. 0 5	0 12	.. 0 32
JMS.	£ s.	£ s.	£ s.	£ s.
MONIACI drop	per cwt. 1 18	.. 2 5	2 2	.. 2 10
lump	" 0 15	.. 1 15	0 18	.. 1 14
NIMI, fine washed	" 14 0	.. 15 10	11 0	.. 12 15
bold scraped	" 12 0	.. 13 10	9 15	.. 10 15
sorts	" 3 15	.. 11 10	6 15	.. 9 10
dark	" 3 10	.. 8 0	4 0	.. 6 12/6
RABIC, E.I., fine pale picked	2 15	.. 3 5	3 0	.. 3 17
srt., md. to fin.	" 2 2	.. 2 14	2 5	.. 2 15
garblings	" 1 5	.. 2 0	1 6	.. 2 0
TURKEY, pick. gd. to fin.	" 5 0	.. 9 0	6 0	.. 9 10
second & inf.	" 3 0	.. 5 15	3 0	.. 5 15
in sorts	" 2 10	.. 3 16	2 10	.. 3 16
Gedda	" 1 13	.. 1 19	1 16	.. 3 8
BARBARY, white	" 0 0	.. 0 0	0 0	.. 0 0
brown	" 2 10	.. 2 15	1 15	.. 1 19
AUSTRALIAN	" 2 2	.. 2 10	1 17	.. 2 15
SAFETIDA, cm. to fin.	" 0 13	.. 2 10	0 16	.. 4 0
JENJAMIN, 1st & 2nd	" 0 0	.. 0 0	27 0	.. 45 0
Sumatra 1st & 2nd	" 0 0	.. 0 0	6 5	.. 11 5
3rd	" 0 0	.. 0 0	3 10	.. 5 0
OPAL, Angola red	" 6 0	.. 6 15	6 0	.. 6 15
Benguela	" 4 0	.. 5 0	4 0	.. 5 0
Sierra Leone, per lb.	" 0 62	.. 0 9	0 6	.. 0 10
Manilla	per cwt. 17 6	.. 23 6	20 0	.. 28 0
DAMMAR, pale	" 74 6	.. 75 0	66 0	.. 75 0
Singapore	" 63 0	.. 70 0	65 6	.. 74 0
SUPHORBIUM	" 9 0	.. 15 0	9 0	.. 15 0
ALBANUM	per lb. 0 32	.. 1 0	0 5	.. 1 3
AMBONE, packd. pipe per cwt.	190 0	.. 245 0	200 0	.. 240 0
UALACUM	per lb. 1 0	.. 2 5	1 3	.. 2 6
CENO	per cwt. 64 0	.. 80 0	40 0	.. 50 0
KOWRIE, rough	" 37 0	.. 48 0	25 0	.. 40 0
scraped sorts	" 49 0	.. 55 0	42 0	.. 55 0
MASTIC, picked	per lb. 3 0	.. 3 8	4 0	.. 5 0
MYRRH, gd. & fine per cwt.	150 0	.. 200 0	150 0	.. 240 0
ord. to fair	" 70 0	.. 147 6	70 0	.. 130 0
LIBANUM, p. drop	" 50 0	.. 55 0	49 0	.. 52 6
amber & ylw.	" 37 6	.. 48 6	42 0	.. 46 0
garblings	" 19 0	.. 28 0	10 0	.. 26 0
BENEGAL	" 62 6	.. 95 0	65 0	.. 67 6
BANDARAC	" 62 0	.. 90 0	79 0	.. 100 0
SHELLAC, Orange	" 73 0	.. 90 0	90 0	.. 99 0
Liver	" 63 0	.. 72 0	83 0	.. 91 0
THUS	" 20 0	.. 21 6	20 0	.. 21 6
TRAGACANTH, leaf	" 240 0	.. 400 0	240 0	.. 400 0
In sorts	" 65 0	.. 175 0	25 0	.. 175 0
ILS.	£ s.	£ s.	£ s.	£ s.
SEAL, pale	per tun 31 10	.. 32 0	33 10	.. 0 0
yellow to tinged	" 28 0	.. 31 0	31 10	.. 33 0
brown	" 26 0	.. 27 0	31 0	.. 0 0
SPERM	" 67 0	.. 68 0	80 0	.. 0 0
BODY	" 0 0	.. 0 0	0 0	.. 0 0
DD	" 80 0	.. 0 0	36 0	.. 0 0

Oils, continued:—

	£ s.	£ s.	£ s.	£ s.
WHALE, South Sea, pale, per tun	31 10	.. 32 0	32 0	.. 36 0
yellow	" 31 0	.. 0 0	0 0	.. 35 0
brown	" 28 0	.. 29 0	29 0	.. 0 0
East India, Fish	" 0 0	.. 0 0	0 0	.. 0 0
OLIVE, Galipoll	per ton		0 0	.. 0 0
Gioja	"		0 0	.. 0 0
Levant	"		0 0	.. 0 0
Mogador	"		0 0	.. 0 0
Spanish	"		50 0	.. 0 0
Sicily	"		0 0	.. 0 0
COCOANUT, Cochinchina	"		58 0	.. 0 0
Oeyton	"		44 0	.. 41 10
Mauritius	"		44 0	.. 44 10

GROUND NUT AND GINGELLY:

	£ s.	£ s.	£ s.	£ s.
Bombay	"		0 0	.. 0 0
Madras	"		0 0	.. 0 0
PALM, fine	"		37 0	.. 39 0
LINSEED	"		28 15	.. 29 10
RAPESEED, English, pale	"		31 15	.. 35 0
brown	"		32 15	.. 33 0
Foreign, pale	"		0 0	.. 0 0
brown	"		0 0	.. 0 0
COTTONSEED	"		31 10	.. 32 10
LARD	"		42 0	.. 50 0
TALLOW	"		30 0	.. 30 0
s. d.			s. d.	
TURPENTINE, American, cks.	22 9	.. 23 0	25 6	.. 0 0
French	"		0 0	.. 0 0
PETROLEUM, Crude	"		0 0	.. 0 0
refined, per gall.	"		0 91	.. 0 103
Spirit	"		0 71	.. 0 82

SEEDS.

	£ s.	£ s.	£ s.	£ s.
CANARY	per qr.	45 0	.. 56 0	.. 60 0
CARAWAY, English per cwt.	"	0 0	.. 0 0	.. 56 0
German, &c.	"	0 0	.. 0 0	.. 49 0
CORIANDER	"	18 0	.. 23 0	.. 26 0
HEMP	per qr.	35 0	.. 44 0	.. 0 0
LINSEED, English	"	0 0	.. 0 0	.. 53 0
Black Sea & Azof	"	50 0	.. 0 0	.. 0 0
Calcutta	"	50 6	.. 50 9	.. 55 0
Bombay	"	52 0	.. 0 0	.. 56 0
St. Petrsbrg.	"	0 0	.. 0 0	.. 53 0
Mustard, brown	per bushl.	14 0	.. 17 0	.. 12 0
white	"	9 0	.. 16 0	.. 13 0
POPPY, East India, per qr.	"	55 0	.. 56 0	.. 0 0

SPICES.

	£ s.	£ s.	£ s.	£ s.
CASSIA LIGNEA	per cwt.	42 0	.. 52 0	.. 48 0
Vera	"	22 0	.. 36 0	.. 45 0
Buds	"	56 0	.. 57 0	.. 74 0
CINNAMON, Ceylon				
1st quality	per lb.	1 8	.. 2 10	.. 1 9
2nd do.	"	1 6	.. 2 5	.. 1 6
3rd do.	"	1 4	.. 1 9	.. 2 3
Tellicherry	"	0 0	.. 0 0	.. 2 6
CLOVES, Penang	"	1 8	.. 1 11	.. 1 4
Amboyna	"	1 5	.. 1 7	.. 1 6
Zanzibar	"	1 24	.. 1 32	.. 1 2
GINGER, Jam., fine per cwt.	"	90 0	.. 202 6	.. 202 6
Ord. to good	"	52 0	.. 80 0	.. 53 0
African	"	21 6	.. 22 0	.. 29 0
Bengal	"	18 0	.. 19 0	.. 22 6
Malabar	"	0 0	.. 0 0	.. 30 6
Cochin	"	47 0	.. 125 0	.. 115 0
PEPPER, Blk., Malabar, per lb.	"	0 45	.. 0 51	.. 0 51
Singapore	"	0 34	.. 0 34	.. 0 0
White Tellicherry	"	0 0	.. 0 0	.. 1 4
Cayenne	"	1 4	.. 3 1	.. 3 0
MACE, 1st quality	"	1 10	.. 2 8	.. 2 0
2nd and inferior	"	1 0	.. 1 9	.. 0 11
NUTMEGS, 78 to 60 lb.	"	4 0	.. 4 9	.. 4 6
90 to 80	"	3 0	.. 3 11	.. 3 7
132 to 95	"	1 11	.. 2 11	.. 2 11
PIMENTA	"	0 45	.. 0 45	.. 0 45

VARIOUS PRODUCTS.

	£ s.	£ s.	£ s.	£ s.
COCHINEAL				
Honduras, black	per lb.	2 3	.. 2 7	.. 2 4
" silver	"	2 4	.. 2 5	.. 2 5
" pasty	"	2 3	.. 2 0	.. 2 0
Mexican, black	"	2 3	.. 2 4	.. 2 1
" silver	"	2 2	.. 2 3	.. 2 0
Teneriffe, black	"	2 4	.. 3 2	.. 2 2
" silver	"	2 4	.. 2 5	.. 2 5
SOAP, Castile	per cwt.	26 0	.. 33 0	.. 33 0
SOY, China	" galv.	2 5	.. 0 0	.. 1 8
SPONGE, Turk. fin. pkd prlb.	"	0 0	.. 0 0	.. 0 0
Fair to good	"	0 0	.. 0 0	.. 0 0
Ordinary	"	0 0	.. 0 0	.. 0 0



•CORRESPONDENTS should be careful to send us their names and addresses, not necessarily for publication, but to authenticate their queries. We bind ourselves to do our best to answer all who conform to this rule, but anonymous questions will be answered or not as we find it convenient. We would also call attention to the heading "Notes and Queries," and would suggest that our readers should send us some Notes, and not Queries only. We frequently publish formulae, and think that it would be very valuable to the trade generally if those who try them would report their experience.

Mr. John Lee (Great Yarmouth) sends us samples of liquor opii and tinct. emph. co. prepared by a special method. He says that he has long considered that "the properties of opium are diminished in proportion to the quantity of spirit added to the opium, no matter how pure the opium used." He therefore prepares a liquor and a paregoric without any spirit. The strength of his liquor is $1\frac{1}{2}$ oz. to 20 ozs., and he considers 30 drops of his preparation equal to 40 drops tr. opii. He has tried the paregoric for even long-standing congoths with excellent effect. The solvent he has used appears to him to have taken up the essential properties of the opium and left all extraneous matter. He wishes for our candid opinion on the matter. We have no doubt he has given the subject a good deal of thought, and time, and trouble. But we think it is a pity that he has so long neglected the test of analysis. Has he analysed his liquor to discover how much alkaloid it contains, and the more to find how much is left behind? By properties we believe he means constituents. Has he determined which of the constituents of opium are important and which extraneous? Has he proved that these are perfectly separated by his process; the extraneous remaining behind and the important passing into his preparation? If he has faith in his preparations he should at least take the trouble to check, by the scientific methods available, his prejudices in favour of them. We may add, however, that Mr. Lee has produced preparations which, in point of flavour and apparent excellence, leave nothing to be desired. By the taste we judge that glycerine is at least partially the solvent. Mr. Lee asks if we think his process would in any way infringe Swan & Proctor's patent described by us last month. How can we tell as we give us no information about his process? As the objects of the processes are totally different, however, we do not see how they can affect each other.

Carbon.—We cannot hear anything of Haskold or Fairley's books. You will probably find much of the information you want in J. J. Atkinson's "Treatise on the Gases in Coal Mines," published by Longman, in 1871, at 2s., and in R. Scott's "Ventilation of Coal Mines," published by Spon at 1s.

Carbon.—The following formula has been recommended by Dr. Moelj for the administration of salicylate of soda:—

Mix. One to one and a half tablespoonful for a dose, which may be frequently repeated. Each tablespoonful contains about 4 grammes of sodium salicylate. The direct effect of this salt is to reduce the temperature. It has been extolled in cases of fever, rheumatism, diahetes, and catarrh. A German physician (Justi) has suggested its employment (as a diaphoretic) for children in catarrh, and he thinks small doses most effective. He advises as much as would be taken up on the end of a penknife to be added to the food.

T. D. C. (New Orleans, Louisiana).—We do not think there is any book devoted to the manufacture of printing ink. It is most likely described in Ringwalt's "American Encyclopædia of Printing," published at Philadelphia, U.S., in 1871; Ure's "Dictionary of Arts and Sciences" and Muspratt's "Chemistry" will, we believe, add further facts.

Lime Juice and Glycerine.—"S. L." (Liverpool) sends us the following formula, stating that he has frequently prepared it, and always with a highly satisfactory result, as it forms an emulsion quite white in colour, of a syrupy consistency, and inseparable:—

Mix thoroughly by frequent shaking.

Mr. B. M. Stokes (of Hull) also writes as follows:—"If 'Sapiens' will use some other essential oil than ol. limonis as a perfume for his lime juice and glycerine (?), I think he will not have any more bottles burst. Some four or five years ago I had the same trouble, and knowing the proneness to decomposition of the ol. limonis, I suspected it to be the cause, and therefore discontinued the use of it. Since then I have never had a bottle burst. 'G. S. L.' will find equal parts of aq. eauels and ol. amygd. dulc. give a fairly satisfactory product."

Subscriber, W. S.—The manufacture of toilet soaps on a small scale is thoroughly treated in Snively on "The Manufacture of Perfumes" (Trillbner & Co.). It is difficult to make a profit on the manufacture of soap on a small scale. It will probably pay you better to purchase plain soap, such as emd, white Castile, and palm soap, and perfume them, than to make the soap itself from the crude materials. Soap lye is a solution of caustic alkali, made by treating a solution of the carbonate with lime. In this, as in so many other occupations, capital and division of labour have almost driven small makers from the trade.

Chemicus (Bolton).—The appearances you describe are not worms or living organisms. They are caused by an affection known to doctors as acne. It is most common in young men from puberty to about the 23rd year. The follicles, through which escapes the sebaceous matter which on parts of the face replaces perspiration, cease to perform their function; the matter accumulates, hardens, and can often be expelled by gentle pressure in worm-like masses. The general treatment consists in giving cooling laxatives, pressing the pimples and applying stimulating washes. The patient should avoid intoxicants, heating articles of diet, and violent exercise. As they are not organisms, it is evident the antiseptic treatment is of little use.

J. L. McA. (Nunhead) and Sub Umbra Floresco.—You will find much information on the manufacture of nitroglycerine and other explosives in papers by Professor Abel, printed in back numbers of the *Chemical News*, Watts' "Dictionary of Chemistry" and Payen's "Industrial Chemistry" give more or less detailed accounts of its manufacture. There is no formula published which will enable amateurs to make it on a small scale without the greatest danger. 500 parts by weight of glycerine are to be slowly poured into a cold mixture of 2,200 parts of concentrated sulphuric acid, and 1,100 parts of the strongest nitric acid. After 10 minutes the whole should be poured into six times its bulk of cold water, and the nitro-glycerine which separates must be washed several times with fresh water to remove the acid. Innumerable precautions are necessary to avoid explosion, and we must protest against requests for information on such dangerous subjects from persons who know so little about them that they are unable to turn to original sources for the knowledge they require.

W. Firth (Oldham).—We are obliged for the report you have kindly sent us, but we cannot at present make room for it, and we are not able to go far out of the limits which our title lays down for us.

A. T. M. (Womhwell).—Ginger-beer powder to be sold in packets may be made by mixing $\frac{1}{2}$ oz. bruised ginger, $\frac{2}{3}$ oz. cream of tartar, 4 drops essence of lemon, with enough powdered sugar to make the packet of the size desired. To use this powder, add it to a gallon of boiling water and a pound of lump sugar, and when nearly cold float on it a piece of toast, on which you must place two or three tablespoonfuls of good yeast.

W. N. G. L. (Islington).—The Dental Register is not yet open, and probably will not be till the end of September. We shall give at the earliest possible date all details necessary to make the application for registration effective. W. J. Miller, Esq., Registrar to the General Medical Council, will also be the Dental Registrar, and to him all communications must be addressed. Nothing can or need be done at present.

Dispensing Query.—The following prescription was handed me a few days since to dispense:—

As no excipient was ordered, I consulted a neighbour of mine, who strongly recommended ext. hyoscyamus as an excipient. Not wishing to add to the doctor's prescription, I used mucilage of tragacanth, with good results. Kindly inform me "who was right and who was wrong."—W. N. G. L. As the matter stands we think that the doctor was wrong in ordering no excipient, and your neighbour in proposing ext. hyoscyamus. You were right in using the inert mucilage, and as you say you obtained good results we can hardly understand the grounds of your uncertainty.

W. F. W. asks us to tell him of a good house to get methylated spirit from, as, being a licensed retailer, the excise officer tells him he must get it from a dealer, not from a drug house. So he has gone to Bowerbank & Sons and D. S. Kidd, and their price is just 4*d.* per gallon more than drug house quotes. We do not understand what the excise officer is in trouble about, and as to the price, we await further remarks.

W. F. W.—Wanklyn on "Water Analysis," price 7s. 6d., will give you full instructions as to one of the methods adopted in the examination of potable waters for sewage impurities. The same information somewhat compressed is contained in a very practical form in Sutton's "Volumetric Analysis," which also describes the process originated and adopted by Dr. Frankland. The latter process is by far the most scientific and least practicable.

J. H. and several other correspondents will find full information respecting the Dentists Act in this number of our journal. The Register is not yet open, but when arrangements are completed we will give all necessary particulars.

E. S.—We do not suppose you would be in any danger in emitting any preparation "Blood Mixture," so long as you took care not to imitate the style of any existing proprietary medicine, or by any means to mislead customers.

